

AIR WING

RCAF Commanders'
Perspectives During the
2011 Libyan Conflict

Edited by
Richard Mayne & William Morin



CANADIAN
ARMED FORCES



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AIR WING:

RCAF Commanders' Perspectives During
the 2011 Libyan Conflict

EDITED BY

Richard Mayne & William March

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OPERATION MOBILE THEATRE



Introduction

By Dr. Richard Oliver Mayne, CD, and Major William March, CD

Operation (Op) MOBILE, the designation given to Canada's military assistance to the United Nations' efforts to protect civilians during the 2011 Libyan civil war, was arguably one of the Royal Canadian Air Force's (RCAF's) most successful deployments. Indeed, the Canadian Air Force—which had the “Royal” returned to its title in the midst of the mission—offered up a respectably sized force that punched well above its weight. The fact that the larger North Atlantic Treaty Organization (NATO) mission, Operation UNIFIED PROTECTOR (OUP), was led by a senior RCAF officer, Lieutenant-General Joseph Jacques Charles “Charlie” Bouchard, only seemed to emphasize the fact that the RCAF was playing a pivotal role in what many saw as a noble crusade to save innocent lives. It was certainly impressive that Canadian CF188 fighters dropped approximately 10 per cent of all munitions that fell on Libya, as was the CP140 Auroras' performance in their intelligence, surveillance and reconnaissance (ISR) function, a role for which they did so well that one commentator called these platforms the “Cinderella star of the show.”¹ Not to be outdone by their comrades in the fighter and long-range patrol communities, RCAF CC150 Polaris Tankers were instrumental in filling a critical shortage within the NATO alliance that quickly learned it did not have enough air-to-air refuelling aircraft to meet the demand over Libya, while CH124 Sea King helicopters did essential work flying off the sterns of Royal Canadian Navy frigates. And finally, CC130 Hercules and CC177 Globemaster IIIs ensured that the mission's logistical-support delivery requirements were met, with the former also carrying out a key tactical air-to-air refuelling capability.

Details of Op MOBILE are covered in the first chapter, which, as a reprint from a comprehensive RAND Corporation book on OUP, provides overall context for the personal accounts that follow.² Indeed, it is these chapters that represent the main focus of this publication because they were written by actual tactical- and operational-level individuals and commanders who served during Op MOBILE. The value of these accounts cannot be overstated, as they often provide unique personal perspectives that are not always contained in the sometimes sterile and dry contents of the operational documents and staff work that are produced during any mission. Accounts such as the ones in this book, therefore, complement the official documentation and add pivotal flavour to, as well as a better understanding of, the overall Op MOBILE experience.

The chapters in this publication are, therefore, purposely organized to take the reader from the tactical perspectives of a detachment commander up to the RCAF's senior-most in-theatre operational levels during Op MOBILE. As such, it begins with the fascinating account provided by Colonel (now Brigadier-General) Eric Kenny. He joined the conflict as the Trapani Detachment Commander, returned to Canada and later redeployed to

Op MOBILE as the Air Coordination Element Commander. The ensuing chapters then chronicle the personal experiences of the Task Force Libecco (TFL) Commander, Colonel (now Major-General) Alain Pelletier; the Commander of Task Force Naples (TFN), Colonel (now Major-General) Paul Ormsby; and—following the 7 August 2011 reorganization that combined TFL and TFN into one command (of which much more will be said in the book itself)—the Commanding Officer of Task Force Libecco (called TF LIB to differentiate it from TFL), Acting Brigadier-General (now Major-General) Derek Joyce.

Each of these individuals has rendered outstanding accounts of their time in theatre and no summary in this introduction could do justice to their words. However, in order to give the reader a sense of what this publication has to offer to the literature, it will quickly describe a few of the key themes that are collectively represented in the chapters themselves. For instance, the unique and, initially, problematic command and control (C2) arrangements experienced during Op MOBILE is a popular topic throughout the publication. The manner in which these C2 issues emerged; were identified; and, eventually, solved is extremely enlightening and more than worthy of particular attention for those interested in this larger and important subject. Logistical issues associated with the fact that the RCAF went into Op MOBILE very quickly, and “too lean,” also provide a wealth of lessons observed regarding the support requirements for a major operation. Targeting challenges, and the complications associated with a zero-civilian-casualty policy in modern air operations, is a further topic that is covered extensively in this publication, with fascinating insights. The fact that Op MOBILE was in some ways jokingly referred to as a “Blackberry war” for the RCAF, at least in the early stages of the deployment, provides additional information on the need to provide adequate communication packages into theatre at the time of deployment.

While this just represents a sample of the issues that are explored—other topics of interest include, but are not limited to, the development of air expeditionary warfare doctrine; rules of engagement; finance issues, including the difficulty the RCAF sometimes had paying its bills in theatre; armament storage; intelligence processing as well as sharing and dissemination; and coalition as well as joint factors that could, at times, complicate the mission—it is important to note that the chapter authors pay equal attention to the many aspects of MOBILE that the RCAF did well or that were problem-free (or relatively problem-free). These include the continued development of the CP140 Aurora from the pure antisubmarine-warfare aircraft it once was to the overland ISR platform it has become both before and during Op MOBILE. The conversion of the CC150 into an air-to-air refueller, the CF188's use of its new Sniper Advanced Targeting Pods and the sudden acquisition and use of Joint Direct Attack Munition, as well as the development of the CP140's strike coordination and reconnaissance – coordinator role were all good-news stories that strongly supported the RCAF's narrative of being an agile and adaptive force.

Although C2 centric, it is hoped that this publication will provide a catalyst for continued research and writing about RCAF operations in general and Op MOBILE in particular.

There are a myriad of potential topics brought to light by the authors that are begging for additional examination by scholars and analysts alike. This is particularly true, since the historiography dealing with Canadian military aviation, and its important role as an element of national power, is sparse, especially post-1945. The study and analysis of the tactics, equipment, processes and people that are sent into harm's way are vital and support both a broader understanding of the Canadian approach to air power as well as the professional development and air power mastery of uniformed practitioners.

In a larger, more practical sense, however, this publication represents an effort by the RCAF, specifically its History and Heritage office, to actively capture the Air Force's experiences as, or shortly after, they happen. The importance of gathering this type of information in a timely manner—particularly oral history and personal accounts—cannot be overstated. The simple fact of the matter is that the human condition almost always ensures the fading of memory as more and more years pass, and as a result, recollections decades from now will undoubtedly differ from ones that are caught immediately (or nearly so). It is for this reason, that the Directorate of RCAF History and Heritage has launched a programme (of which this publication is a part) that not only is designed to ensure that the RCAF's history is preserved and promoted through the retention of information from current operations but also provides future historians with the tools they will need to properly relate these essential stories to the Canadian public and others in the due course of time. Doing so is more important than ever. As noted by the Director of the Oral History Program at the University of California, David Russell, this is because

oral history is one of the most important analytical tools available to researchers today; and its importance is destined to grow as the telephone, fax machine, and e-mail continue to transform the types of materials being sent to archives. ... [Because of this fact,] oral history may become the only viable alternative left for those wanting to obtain the same types of insights these traditional sources provided.³

Russell makes an excellent point. Email, more than any other communication device, is undoubtedly complicating the historian's world. Some people keep emails or print hard copies for their own records, but in most cases, it is much easier to simply delete such correspondence when done with it, either during or at the end of an operation. While this certainly lends creditability to why the RCAF needs an active programme that records its history as it happens, there is the additional fact that much of the official documentation related to Op MOBILE is classified and will remain so for many years to come. Eventually, this material will be declassified, at which point Op MOBILE's full story can be told, and it is the hope of the editors of and contributors to this publication that its contents will add critical context that only oral history and personal accounts can provide.

Abbreviations

C2	command and control
ISR	intelligence, surveillance and reconnaissance
NATO	North Atlantic Treaty Organization
Op	Operation
OUP	Operation UNIFIED PROTECTOR
RCAF	Royal Canadian Air Force
TFL	Task Force Libeccio
TFN	Task Force Naples

Notes

1. As cited in Chapter 1, Dr. Richard Oliver Mayne, "The Canadian Experience: Operation Mobile," 14.
2. Karl P. Mueller, ed., *Precision and Purpose: Airpower in the Libyan Civil War* (Santa Monica, CA: Rand Corporation, 2015), accessed January 23, 2018, https://www.rand.org/pubs/research_reports/RR676.html.
3. David E. Russell, "Oral History Methodology, the Art of Interviewing" (University of California, Santa Barbara), 2, accessed January 23, 2018, <http://www.history.ucsb.edu/faculty/marcusc/projects/oralhistory/199xDRussellUCSBOralHistoryWorkshop.pdf>.

CHAPTER 1

The Canadian Experience: Operation Mobile

By Dr. Richard Oliver Mayne, CD

Editor's note: This paper was originally published as Chapter Nine of Karl P. Mueller, ed., *Precision and Purpose: Airpower in the Libyan Civil War* (Santa Monica: RAND Corporation, 2015) and is reprinted with permission. The original spelling and punctuation conventions have been retained.

Introduction

It was a heroes' welcome. The roar of a CP-140 Aurora long-range patrol aircraft, followed by CF-188 tactical fighters, a CC-150 Polaris tanker, and other key aircraft flying in formation over the Canadian Parliament on November 24, 2011, marked the last act in Canada's successful involvement in the North Atlantic Treaty Organization (NATO) mission Operation Unified Protector (OUP). This fly-past, as well as a special event on Parliament Hill dedicated to the Canadian Forces (CF) personnel involved in the mission, was recognition for a job well done. The government wanted Canada to play a significant and leading role in Libya through Operation (Op) Mobile (the Canadian designation for the mission to protect civilians from Muammar Qaddafi's regime), and the Royal Canadian Air Force (RCAF) helped deliver those effects. One of the RCAF's key mandates is to provide Canada and NATO with relevant, responsive, and effective airpower,¹ yet it is not always easy for it to do so. Smaller NATO nations such as Canada do not have the same resources as their larger allies, and often have to struggle to find the right balance of equipment, training, personnel, and doctrine that will allow them to provide the readiness, agility, flexibility, and versatility required to respond to unforeseen situations.²

The RCAF has recently developed a new capability centered on an independent Air Expeditionary Wing (AEW). Supported by new air expeditionary doctrine, this wing is designed to provide a mechanism for rapidly deploying Canadian airpower and delivering strategic effects around the world without causing major disruptions to the air force's existing capabilities.³ Although the AEW did not become operational until 2013, Libya nevertheless served as a test of the concept. A number of accounts suggest that this concept served Op Mobile well in Libya, as one NATO official argued that Canada had clearly "punched beyond its weight" during the conflict in terms of both the leadership and capabilities it provided. Former United States (U.S.) Secretary of Defense Robert Gates expressed a similar sentiment, and it is understandable why Canada received these

types of accolades.⁴ Not only did a Canadian (Lieutenant-General Charles Bouchard) command the NATO mission, but when compared to its overall size, the CF made a significant contribution by rapidly deploying seven CF-188 fighters, two CC-150 Polaris tankers, two CC-177 and two CC-130 transports, two CP-140 Aurora long-range patrol aircraft, and a CH-124 Sea King helicopter as well as a Royal Canadian Navy (RCN) frigate.⁵ Yet some scholars and pundits claim that upon closer examination, their nation's military, humanitarian, and diplomatic efforts were "flying under the radar" of international opinion, which suggested that Canada overestimated its role in the conflict.⁶ As a result, the aim of this chapter is to determine whether and how Canadian expeditionary airpower allowed the government to achieve its foreign policy aims in Libya through the delivery of fast, effective, agile, and flexible strategic effects. Put another way, did Canada truly "punch above its weight" during Op Mobile, and what lessons, if any, did the RCAF learn from the mission?

Beyond Rhetoric, Taking Action

The Canadian government was quick to condemn the Qaddafi regime's violent crackdown on the protests that erupted within Libya in early 2011. Minister of Foreign Affairs Lawrence Cannon in mid-February made it clear in statements that Canada was deeply concerned with the events unfolding in Libya, emphasizing that Qaddafi had to "respect the rights and freedoms of [his] people and engage in peaceful dialogue of their legitimate concerns." While Canada observed that it was watching the situation closely and made strongly worded appeals to the Libyan government to stop the use of violence against its own people, its first priority was placed on the safety of Canadian nationals. Working closely with "like-minded countries," the Department of Foreign Affairs and International Trade (DFAIT) looked at various means to secure passage out of Libya for the 331 registered Canadians living there.⁷

It did not take long before concerns emerged about DFAIT's efforts; so much so, in fact, that members of the Official Opposition in parliament as well as the press were quick to jump on claims that the initial evacuation was a confused affair.⁸ The RCAF was in a good position to help. On February 25, a CC-177 from 429 Transport Squadron en route to Kandahar, Afghanistan, was redirected to Rome and then Malta in anticipation of supporting the evacuation from Tripoli. Canadian Expeditionary Force Command (CEFCOM), which was the organization responsible for CF operations outside of North America, authorized the mission on the following day, marking the beginning of Operation Mobile.⁹

The RCAF moved quickly to provide the necessary support for what was described as a DFAIT-led, whole-of-government, multinational effort to evacuate Canadian diplomatic staff, citizens, and foreign nationals from Libya. Other RCAF assets that would join Joint Task Force (JTF) Malta, the name given to the forces allocated to this phase of Op Mobile, included a second CC-177 (which, like the first, was retasked from

Afghanistan) and two CC-130J Hercules aircraft from 8 Wing in Trenton, Ontario, along with the CF's Operational Liaison and Reconnaissance Team (OLRT), a maintenance team, medical staff, military police, and an air component command and control (C2) team. Preparations at Trenton were completed within 24 hours, and once in-theater they joined a military assistance team of CF members already serving in the area on other assignments. Based in Valletta, this military assistance team, which became the JTF Malta Headquarters (HQ), established links with regional allies as well as personnel from other Canadian departments and partners.¹⁰ The entire contingent integrated quickly with DFAIT's diplomatic staff and multinational agencies, resulting in the safe evacuation from Libya of 4,431 people from 24 nations.¹¹ Of this total, the 80 CF personnel of JTF Malta were responsible for evacuating 191 individuals (61 Canadian and 130 foreign nationals) from 23 countries by the time of its last flight on March 8.¹²

Having reached its full operating capacity two days after deploying, the RCAF flew six evacuation missions (two by CC-177 and four by CC-130J) over an 11-day period. It was not an easy mission: The presence of Canadians across the vast country and Libyan authorities' occasional refusals to grant landing rights both added to its complexity.¹³ Nevertheless, for Major-General Yvan Blondin, then serving as the commander of 1 Canadian Air Division (Cdn Air Div) in Winnipeg, Manitoba, the RCAF's contribution to JTF Malta "highlighted the agility and responsiveness of airpower and the professionalism of our airmen and air women." Canadian Prime Minister Stephen Harper agreed. He said the RCAF's transport aircraft had given the government a "flexible capability" to respond to the growing crisis. The Chief of the Defence Staff, General Walt Natynczyk, indicated that it also displayed Canada's "ability and willingness to help those in need."¹⁴ Yet officials had little time to enjoy the evacuation's success, as the Canadian government already was considering the appropriate political and diplomatic response to the worsening situation in Libya, as well as a potential military intervention.¹⁵

The government took great pride in its reaction to the crisis. Its support for United Nations Security Council Resolution (UNSCR) 1970—which challenged Qaddafi's violence against his own people through an arms embargo, travel ban, asset freeze, and the establishment of new sanctions—was firm and unequivocal.¹⁶ After suspending Canada's diplomatic presence in Libya and evacuating the ambassador and his staff on February 26, both the prime minister and the Foreign Affairs minister emphasized that the nation "supports the demands of the Libyan people for freedom, democracy, human rights and the rule of law."¹⁷ In fact, the Conservative government went beyond UNSCR 1970 by imposing additional asset freezes as well as a prohibition on financial transactions with the Libyan government and its central bank. By doing so, the government emphasized it was trying to further prevent the Qaddafi regime from gaining access to money that could be used to perpetrate additional acts of violence against its people.¹⁸ It also was designed to show that Canada's support to the Libyan people was not mere rhetoric; the Harper government later observed that Canada was among the first nations to impose heavy sanctions on the Qaddafi regime.¹⁹ The decision to deploy the frigate *Her Majesty's Canadian Ship (HMCS) Charlottetown* to the region on March 1 achieved a similar effect, as did

a government pledge of \$5 million in humanitarian aid to the Libyan people for medical care, food, and shelter. But exactly how Canada was going to help Libya achieve a free and more democratic society was less clear.²⁰

Ready to Act, but Awaiting Consensus

Foreign Affairs Minister Cannon made initial comments that Qaddafi should be brought before the International Criminal Court to answer for his attacks on his own people, while Government House leader John Baird called for regime change in Libya. But those declarations soon were muted by the reality that the international community was far from united on what next to do.²¹ While some nations, notably Great Britain and France, were hankering for a no-fly zone over Libya, others, such as the United States, were advising caution.²² For Canada, this uncertainty meant the government had to mark time. Observing that the talk of a no-fly zone "had abated somewhat," Minister of National Defence Peter MacKay cautiously warned that, while all NATO nations were participating in discussions, no decision had been made.²³ The lack of consensus within NATO ensured that the Canadian government's messaging remained the same for the next two weeks, explaining why MacKay later told the press that "Canada is standing with our allies to monitor the current situation in North Africa and will keep working with our allies as the situation continues to develop."²⁴ Various members of the government already had hinted that Canada wanted to act more forcefully, but as a NATO partner, it was clear that Canadian intervention was tied to what the Alliance was willing to do.

Comments in the Canadian parliament indicated that the government was hoping the popular uprising in Libya would follow a path similar to those in Tunisia and Egypt, where the ruling elite eventually bowed to the popular will, negating the need for foreign intervention.²⁵ Other Alliance members undoubtedly felt the same way, but with the once-confident Libyan rebels on the run, and Qaddafi vowing to crush his opposition, it was obvious events were not transpiring in a similar manner. Worse yet, as the regime's forces closed to within 130 kilometers of the rebels' bastion in Benghazi, Qaddafi's promises of a bloodbath were backed with action. Faced with this unpleasant prospect, President Barack Obama's administration came out in support of a no-fly zone over Libya.²⁶ As a result, on March 17, UNSCR 1973—to protect civilians as well as impose a no-fly zone and strengthen the arms embargo on Libya—was passed with ten nations in favor and five abstentions.²⁷

Speculation began about the type of military commitment that Canada would make to Libya. Some journalists wondered whether Canada could participate in a substantial combat role, given its heavy involvement in Afghanistan. Others expected a deployment that was similar to Kosovo, where, it was observed, the RCAF shouldered "a disproportionate share of the mission's burden ... to help stop Serbian ethnic cleansing."²⁸ It did not take long before they had their answer. After announcing that CF-188 fighters and other

RCAF assets would be joining the RCN frigate that was already on-station off the coast of Libya, Prime Minister Harper then framed the reasons for Canadian intervention in Libya. After explaining that the situation "remains intolerable," he said urgent action was required to support the United Nations (U.N.) resolution because "the Libyan people have shown by their sacrifices that they believe in [democracy]. Assisting them is a moral obligation upon those of us who profess this great ideal ... One either believes in freedom or one just says one believes in freedom."²⁹ In addition to the moral imperative to act, the Prime Minister also framed Canada's decision to intervene on the grounds of it being an active member of both the U.N. and NATO. As an international steward and Alliance partner, Canada had not only worked hard to gain support for UNSCR 1973, but also had engaged "likeminded states to ensure that it could be enforced."³⁰

Defence Minister MacKay was even more direct. Rising in the Canadian parliament on March 21 to explain the government's position on Libya, MacKay announced that Canada was in a strong position to play an active role in protecting the lives of Libyan civilians and enforcing both the Security Council's mandated no-fly zone and the arms embargo. He reminded his fellow parliamentarians that the deployment of the RCAF to this particular mission was not without precedent. In 1999, Canada's CF-188s were involved in the NATO mission in Kosovo (Operation Allied Force), where they flew 678 sorties and logged more than 2,600 flying hours from March to June while carrying out 10 percent of NATO's strike missions. As in that situation, MacKay reiterated, the Prime Minister's message that Canada was "compelled to intervene, both in a moral duty and by duty of NATO and the United Nations, which, as members would know, are institutions that we helped found. In this situation, deploying the Canadian Forces is the right thing to do, and I expect that Canadians and members of the House clearly recognize that fact."³¹

In reality, the outcome of the vote in the House of Commons was never in doubt. Having used the weekend to work the phones with the leaders of the opposition parties, Harper's actions meant Parliament's support for Canadian intervention was unanimous. As a result, all parties agreed with a mission that one opposition member described as "a perfectly legitimate operation since it is being carried out as a multilateral effort and its purpose is to protect civilian populations." Concerns remained, however. During the debate on the motion, the opposition asked some tough questions, such as how long the mission would last and whether the government had an exit strategy in case it dragged on. Some wondered if any metrics existed to determine when the mission could be considered a success, while yet others feared that the government was rushing into a war without knowing if its true purpose was to protect civilians or create the conditions for regime change in Libya. Fears that a commitment to Libya eventually would lead to the employment of Canadian ground troops caused further anxiety to some opposition members, who, in looking at Canada's ten-year involvement in Afghanistan with a bit of trepidation, worried that their country might be entangled in a prolonged engagement. Although Canada was making an important contribution to the war in Afghanistan, the length of that commitment led to some heated and bitter debates in the House of Commons. As a result, the opposition

insisted that Parliament maintain a strong oversight role on Canada's intervention in Libya as well as calling for an approach that was both military and diplomatic in nature.³² Harper agreed with many of these points. Although he was in a minority government situation—meaning that the Conservatives' motions easily could be defeated through the cooperation of all opposition parties—the prime minister long had argued that any Canadian military intervention should be brought before Parliament for its blessing. He was further willing to put a three-month limit on the mission, at which time Parliament would have to approve any extension.

An Opportunity to Lead

There were, of course, other reasons for the government's decision to intervene. Ever since his Conservative government was first elected in 2006, Harper set upon an active foreign policy that one pundit described as "muscular pragmatism."³³ Replacing the Liberal Party's "Pearsonian" diplomacy, which depicted Canada as an "honest broker" that relied on soft power to help defuse international situations and conflicts, Harper's foreign policy took more definitive positions. For instance, while the previous Liberal governments had taken a neutral approach to the question of Palestinian statehood, the Conservatives left no doubt they were willing to support Israel. Critics have observed that this new approach cost Canada. Some cited Portugal's selection over Canada to obtain a seat on the U.N. Security Council in October 2010—upsetting Canada's record of winning a seat on the Council at least once per decade since 1945—as evidence that Canada had lost influence on the international scene.³⁴

For proponents, however, the mission in Libya, in conjunction with its role in Afghanistan, offered another chance to show how Canada was "a potent force for good." According to this view, Canada's quick reaction and willingness to provide military and diplomatic support not only added credibility to "the mission but to Canada itself." With tongue in cheek, it was further observed that, despite gaining the Security Council seat, Portugal was not sending any forces to enforce the no-fly zone. That led to claims that Canada's actions were speaking louder than words.³⁵ In many ways, therefore, the Canadian decision to get involved in Libya served as a test of the government's larger foreign policy objectives.³⁶

The Libyan mission also tested another Canadian-inspired U.N. concept, "the responsibility to protect" (R2P). Born from the international community's inability to stop the slaughter of hundreds of thousands of Tutsis during the 1994 Rwandan genocide, as well as its late and somewhat limited success in Kosovo five years later, the R2P doctrine is based on a set of principles designed to protect civilian populations from acts of genocide, war crimes, ethnic cleansing, and crimes against humanity.³⁷ Simply put, this doctrine, which the U.N. unanimously adopted in 2005, claims that sovereignty is a responsibility and not a right, meaning that the international community has a "moral obligation" to intervene when nations turn their guns on their fellow citizens. Although

many Canadian commentators argued that Qaddafi's actions against his people fit the doctrine perfectly, others found it odd that Western nations were paying so little attention to the R2P doctrine when framing their intervention in Libya. Stranger still was the fact that even the Canadian government was not using the doctrine to explain the role it was planning to play, particularly since the Libyan mission appeared as an ideal situation that finally could give the doctrine some teeth.³⁸

Explaining why the government did not place much emphasis on R2P is not easy. After all, Canada played a key role in the doctrine's creation and as one newspaper noted, "It is only about stopping the strong from slaughtering the weak. What could be more Canadian?"³⁹ Politics was one possible reason. Through a vote of no confidence, the opposition parties defeated the government over a domestic issue, resulting in an election campaign that began on March 26. Yet neither the government nor the opposition made R2P (or even the mission in Libya) a campaign issue. In all likelihood, the opposition avoided the topic because it portrayed the prime minister as a statesman who was taking a leading role along with other NATO allies. As international affairs expert Aurel Braun observed, "It is difficult to attack the prime minister on something most Canadians support ... there is a wide consensus across the political spectrum that Canada is doing something just."⁴⁰ As for the government, it appears there was no desire to use the mission to score political points.⁴¹ No matter the reason, however, Canada's involvement in both the development of the R2P doctrine and the intervention in Libya essentially was portrayed the same way. The intervention was framed on Canada's belief in a "moral imperative" to protect civilians as well as its desire to play a key role as a global steward through the U.N. and a reliable and active member of the NATO alliance.⁴²

Adaptability and Impact

The RCAF responded rapidly to the government's order to deploy. Less than a day after the passage of UNSCR 1973, seven CF-188 fighters and two CC-150T tanker aircraft were on their way to join Operation Odyssey Dawn (the name given to the U.S.-led coalition to enforce the no-fly zone and arms embargo).⁴³ They arrived in Italy on March 19 and were in combat a little less than 48 hours later. Consequently, the Defence Minister was able to tell the House of Commons: "We are fortunate to have an air force with capabilities ... that takes mere hours to deploy six [sic] highly sophisticated fighter aircraft and necessary support to depart for a theatre of operations nearly 7,000 kilometres away."⁴⁴ The RCAF had demonstrated its agility and readiness, but preparing for the mission was not easy, since prior to March 17 no one had been certain exactly what, if any, military action would be taken in Libya.

The RCAF had done what it could in the meantime. With the situation in Libya obviously spiraling out of control, a staff check was conducted to assess readiness and determine what types of roles and aircraft the RCAF could send to Libya if called upon by the government to do so. The fact that the RCAF was about to deploy a combat ready

contingent of CF-188s (along with 140 support personnel) as part of Canada's commitment to NATO's Icelandic air policing program offered a unique opportunity. Although the battle order would require some modification from air policing to combat operations, Operation Ignition (the code name for the Iceland deployment) meant that the RCAF had a contingent of CF-188s that already was prepared at the NATO quick-reaction alert standard. This, it has been estimated, allowed the RCAF to respond 24 to 48 hours faster than it otherwise would have. Moreover, in a further display of its agility and readiness, the RCAF was able to send CF-188s to both commitments, as the aircraft redeployed to Mobile were replaced by others that arrived in Iceland later in the month.⁴⁵

Six CF-188s (plus one spare) is the RCAF standard deployment package, as it permits a four-aircraft sortie (or a minimum of four sorties per day) mission set, while the "spare" serves as a backup that covers the detachment's maintenance requirements and improves its serviceability rate. On the other hand, the RCAF originally sent both of its Airbus CC-150 Polaris refueling aircraft because it allowed all seven CF-188s to cross the Atlantic at the same time, meaning that the entire detachment reached the theater of operations quicker and as a composite unit. It is interesting to note that the original intent was to return one CC-150 to Canada after the initial deployment. However, that plan was quickly altered once it was realized that the mission faced a shortage of tankers. The fact that aerial refueling would prove one of the most sought-after commodities of the campaign also explains why the RCAF deployed two CC-130T Hercules tankers to replace one of the CC-150s that had returned to Canada for scheduled maintenance in May.

Arriving in Sicily on March 25—their warning order to move being issued on March 18 and their first mission being flown ten days later—the two deployed CP-140 Auroras also were much in demand due to their modernized sensors suite, making them another invaluable asset. However, while the Alliance faced a shortage of intelligence, surveillance and reconnaissance (ISR) and maritime patrol aircraft (MPA) throughout the mission, the RCAF would not have found it easy to send more due to the ongoing concurrent modernization of the aircraft, which already was stretching the fleet's operational capacity. As a result, it was determined that two aircraft would give the CP-140s a 100 percent availability rate without pushing this capability beyond its limits.⁴⁶

Aircraft were not the only RCAF assets deployed. On the same day that the CF-188s and CC-150s were landing in Sicily, the leading element of Task Force Libeccio's (TFLs)⁴⁷ headquarters arrived at Ramstein Air Base, Germany, to start the process of coordinating the RCAF's involvement in Operation Odyssey Dawn. Named after the strong southwesterly wind that blows all year in the Mediterranean, TFL, which initially comprised the CF-188 and CC-150 detachments at Trapani and the CP-140 detachment at Sigonella, was one of three original Canadian task forces assigned to the mission. TFL, for instance, was the national command and support element that led, directed, and managed the RCAF's assets. It also was home to the commander of TFL and Air Component Commander Colonel Alain Pelletier, who exercised operational control over all Canadian air assets and was entrusted with ensuring they acted in accordance with national objectives.

and goals. Task Force Charlottetown (TF CHA), on the other hand, consisted of the frigate HMCS *Charlottetown*, as well as an RCAF CH-124 Sea King helicopter that was embarked onboard. Its primary function was to enforce the arms embargo on Libya, which it had been doing since it was officially "CHOPed" to CEFCOM and Standing NATO Maritime Group 1 on March 14.⁴⁸ The final unit was Task Force Naples (TFN). Having emerged while JTF Malta was wrapping up, TFN originally consisted of the liaison and reconnaissance team that deployed to NATO Joint Forces Command HQ. As the Minister of National Defence announced on March 22, TFN also performed the function of a National Coordination Centre and Support Contingent (NCCSC) and, as such, was responsible for all support and administrative issues related to the mission.⁴⁹

While the RCAF was quick to get into the air on operations, it did take time to settle into its new homes in Italy. Much of this delay was the product of deploying so quickly. This meant that the Mission Support Flight (MSF), an expeditionary unit designed to provide air operations and bases with essential infrastructure and services, could not arrive in theater until days after air operations had already commenced—a price of achieving rapid tactical and operational effect with very little warning time. It also faced a daunting challenge because much of the infrastructure to support wartime operations was not present at most locations.⁵⁰ Over time, both the Mobile Strikers Force and engineers built up the Canadian footprint at these locations, and the RCAF was quite fortunate to get the bases it did. Despite restricted ramp space, which resulted in the need to locate the CP-140s at Sigonella, the base at Trapani was one of the closest to Libya, which cut down considerably on flight times. Although the RCAF would have preferred to have all its air assets at one location for command and logistical reasons, Sigonella also was close to the action and had the benefit of being familiar to CP-140 personnel (who had previous experience operating from this long range patrol base).⁵¹

Issues at the bases did not appear to have any significant effect on RCAF operations during the ten days in which they served under *Odyssey Dawn*. It was a busy period. The distance they had to travel from Canada to Italy meant the RCAF was not part of the initial assault on Libya. Under the command of U.S. Africa Command, American and British forces pounded air defense, communication, and command locations with approximately 110 Tomahawk cruise missiles. This paved the way for coalition aircraft, which turned their attention to cutting off the regime forces' logistical support. They also stopped the regime's assault on Benghazi with French aircraft leading the way, and stalled the advances on Ajdabiya and Misrata.⁵² The RCAF first joined these efforts on March 21, when four CF-188s, refueled by the two CC-150s, conducted escort and air interdiction patrols off Libya's coastline. It was an important moment for the Canadian government, as Defence Minister MacKay saw tremendous significance in an inaugural mission that "demonstrates our government's intent and Canada's ability and willingness to play an active role in Libya."⁵³ The RCAF's second mission was equally symbolic. Canadian officials were determined to maintain a policy of zero civilian casualties, and a decision by the CF-188 pilots not to release their weapons on a targeted Libyan airfield because of fears of collateral damage immediately underscored that the RCAF was taking this responsibility quite seriously.⁵⁴

The RCAF was next in action over Misrata, where CF-188s destroyed an ammunition depot with four laser-guided bombs as part of the coalition's attempt to push regime forces back from that besieged city.⁵⁵ CF-188 targets and operations over the rest of the week ranged from air interdiction patrols over Libya to attacks on other ammunition dumps, reinforced bunkers, and reportedly an electronic-warfare site. The RCAF's contribution to *Odyssey Dawn* also was spread over a wide expanse of the country, covering an area from just outside of Tripoli to Brega and as far south as the Jufrah Airfield. From the available evidence, it appears the RCAF's greatest concentration of strikes was in the Misrata region, as the area between this city and the strategic crossroads at Ajdabiya reported some of the regime forces' worst cases of violence in Libya.⁵⁶ The CC-150s, which operated over the Mediterranean, also were extremely active during their involvement with *Odyssey Dawn* as they refueled RCAF and coalition aircraft alike. Having accomplished the type's first trans-oceanic refueling mission to get the CF-188 into theater, the CC-150s were quickly certified on a variety of different receiver aircraft from various nations, and from then onward, they were one of the preferred refueling platforms within the coalition.⁵⁷ The CP-140s, on the other hand, only had the chance to fly 20 hours during *Odyssey Dawn* in which they performed maritime reconnaissance and limited psychological warfare operations (using radio transmissions) as well as ISR flights before the mission was turned over to NATO.⁵⁸

Although it took some time for NATO to sort out a suitable C2 arrangement, the transition from the U.S.-led Operation *Odyssey Dawn* to Unified Protector on March 31 did not significantly impact the RCAF. Perhaps the most notable change was the relocation of the TFL HQ. Having already moved once from the U.S. Combined Air Operations Center (CAOC) to the NATO HQ building in Ramstein on April 1—which was done to allow better communications with CEFCON and the air detachments at Trapani and Sigonella—the TFL HQ again was uprooted to Poggio Renatico six days later.⁵⁹ This move made perfect sense, as NATO's CAOC 5—the Alliance's C2 center responsible for planning, directing, and coordinating all air activities over Libya—was a key operational nerve center. In the end, the Canadian Air Component HQ's quick deployment and attainment of full operational capability as well as its integration into the NATO CAOC went extremely well—so well, in fact, that one senior Canadian officer observed that it “demonstrated the ability of the RCAF to quickly and seamlessly integrate into a multi-national coalition command structure, enabling near immediate employment of RCAF aircraft in the conduct and support of combat operations.”⁶⁰

The transition from *Odyssey Dawn* was even more significant for Canada because a Canadian commanded Unified Protector. Lieutenant-General Charles Bouchard was considered a good choice to head the NATO mission; Canada's Minister of National Defence described him as a “formidable leader, with tremendous character and ability.”⁶¹ Having served as the deputy commander of Allied Joint Force Command in Naples since 2009, Bouchard was familiar with the area and had much experience in NATO and coalition environments. As a result, the transition from U.S. Admiral Samuel J. Locklear (who was the commander, Allied Joint Force Command Naples, and responsible for *Odyssey Dawn*) to Lieutenant-General Bouchard represented a natural progression.

Moreover, Lieutenant-General Bouchard immediately put his NATO experience to good use. When summoned to Admiral Locklear's command ship (the United States Ship *Mount Whitney*) and effectively given seven days to establish a Combined Joint Task Force HQ within the constraints of Joint Force Command (JFC) Naples, Bouchard was able to quickly pick much of OUP's leadership team from the officers who had previously helped him prepare the NATO Reaction Force.⁶²

Perhaps the greatest challenge Lieutenant-General Bouchard and the forces under his command faced during OUP was operating in a highly dynamic environment where it often was difficult to identify belligerents.⁶³ Yet thanks to extensive upgrades in 2005, as well as the addition of the Sniper Advanced Targeting Pod (ATP) and laser designators, the RCAF's CF-188s were in a good position to play an important role in fulfilling the Canadian Forces' mandate to "integrate into the NATO C2 structure under NATO OUP to enforce UNSCRs 1970 and 1973 ... and protect civilian populated areas in Libya."⁶⁴ The CF-188 contribution to this mandate would consist of a mixture of dynamic and deliberate targeting as well as defensive counterair operations. Also known as Strike Coordination and Reconnaissance (SCAR) and consisting of searches for targets of opportunity, most of the RCAF's strike sorties (680 out of 944) during Op Mobile were dynamic in nature. Air Interdiction, or deliberate targeting, accounted for 212 sorties, while defensive counter-air (DCA) was performed on four other occasions. The remaining 48 sorties were classified as deliberate-dynamic targeting (DDT), a relatively new concept developed during Mobile in which pilots were prepared for a specific mission but could be retasked while airborne.⁶⁵

Having flown combat missions every day for the first 40 days of the mission, the CF-188s were most active in the Misrata, Ajdabiya, Brega, Zintan, Tripoli, and Waddan areas throughout April and May.⁶⁶ While the majority of targets were dynamic and consisted of main battle tanks and other vehicles, the RCAF did conduct a number of deliberate sorties on ammunition, vehicle, and communication facilities as well as bunkers. Much of this effort was directed at disrupting the regime forces' lines of communication and supply, particularly around Misrata, whose civilian population was under heavy barrage.⁶⁷ Zintan, in western Libya, also was a source of concern, since it was the focus of a large regime assault. Although the RCAF would continue to assist with curtailing the regime forces' attacks on Misrata, as well as hitting some targets around Brega, many of the CF-188s' missions in June were flown in support of NATO operations in the Tripoli area, with successful strikes reported on various command and vehicle facilities as well as barracks and logistical nodes.⁶⁸ The operational tempo for the CF-188s continued to increase over the summer months. Peaking in July, the RCAF's seven CF-188s were flying an average of six sorties per day, although surges to eight sorties also occurred. This tempo later was reduced to an average of four per day to keep within the allocated flying rate for the operation.⁶⁹

This active pace continued into August and did not begin to abate until mid-September, when regime forces had been confined to the area between Sirte, Bani Walid, and Sebha. It was at this time that the RCAF flew its deepest strike into Libya. On September 11, the

RCAF became one of the first OUP air forces to operate below the personnel recovery line when its CF-188s participated in a mission that was reported to be in the Sebha area.⁷⁰ Some accounts even suggest that no other aircraft ever flew as far south as the RCAF did on that day, but the true measure of the CF-188s' overall proficiency during this period was recognized by the fact that they often served as mission commanders for a number of multi-nation strike packages. More importantly, however, serving in this role demonstrated their interoperability, as the CF-188s easily integrated into coalition and alliance operations.⁷¹ Individual pilots were also making major achievements; among them was Major James "Buca" Kettles, who flew his 50th combat mission on October 2, 2011 to become the first RCAF pilot to do so since the Korean War.⁷²

Early October brought an important new capability to the CF-188s, which added to the RCAF's flexibility and versatility as a whole. In many instances poor weather, in combination with the mission's extremely strict rules against collateral damage, had limited the use of the RCAF's Guided Bomb Unit (GBU)-10 [2000 pound or 900 kilogram] and GBU-12 [500 pound or 225 kilogram] laser-guided bombs. By using global positioning system (GPS) guidance systems, GBU-31 [2000 pound or 900 kilogram] and GBU-38 [500 pound or 225 kilogram] Joint Direct Attack Munitions (JDAMs) could be dropped under all conditions, and Canada began making inquiries about acquiring these weapons from American sources as early as April 2011. With help from the United States Air Force (USAF), United States Navy (USN), and Boeing, Canadian officials managed to streamline a complicated and normally lengthy procurement and testing process, enabling the RCAF to receive its first JDAMs within four months. The result was that CF-188s were able to successfully deploy two GBU-31 and two GBU-38 JDAMs against the Bani Walid ammunition storage area on October 1.⁷³ Brigadier-General Derek Joyce, who directly commanded the RCAF's efforts in Op Mobile at this time, described that attack as an "unmitigated success." Joyce later recalled how the introduction of JDAMs "showcased the CF's capacity to respond rapidly to operational requirements in time of war."⁷⁴ Indeed, Canadian JDAMs were employed to great effect throughout the last weeks of the mission, considerably increasing the RCAF's future flexibility. Op Mobile also allowed the CF-188 community to combat-test other capabilities. Thanks to the earlier acquisition of the Sniper Advanced Targeting Pod and laser designator, the RCAF's CF-188s were able to drop GBU-10 2,000-pound [900 kilogram] bombs for the first time in this operation on May 7, while leading a 16-aircraft strike on a vehicle storage facility.⁷⁵

Air Refueling and Long-Range Patrol

The CF-188s and their pilots certainly did their part throughout Mobile, as they were responsible for more than 10 percent of NATO's strike missions.⁷⁶ None of these achievements for the CF-188 community would have been possible without the CC-150Ts and CC-130Ts as well as other allied refueling aircraft. The CC-150s and CC-130Ts were the true enablers, as NATO strike aircraft required refueling at least once per mission. Of the two, the CC-150s were far better suited for this role. Not only did they provide a greater

degree of flexibility, but they also possessed higher speeds and greater fuel capacity as well as an ability to remain on station longer than the CC-130Ts. Indeed, the CC-130s often were pushed to their limits.⁷⁷ Yet their deployment into theater nevertheless demonstrated their agility, as these aircraft were originally intended to provide a domestic air-to-air refueling (AAR) capability. As a result, they were a welcome addition and filled a key gap during the period when one CC-150 underwent required maintenance by offloading close to four million pounds [1.8 million kilograms] of fuel between May 23 and September 12. The CC-150s, on the other hand, were responsible for the delivery of 14 million pounds [6.4 million kilograms] of fuel during the conflict. This feat was all the more significant given that this was a relatively new role for an aircraft that only had recently acquired an AAR capability. These types of results were the product of an extremely hectic operational tempo in which the RCAF's CC-150s and CC-130s were sometimes flying two missions per day and responsible for 4.1 percent of all NATO refueling sorties.⁷⁸ Their serviceability rate, which stood at 96 percent, was impressive, as was their ability to refuel almost every type of allied aircraft (including some unique experiences, such as when a CC-150 topped up a Swedish Air Force JAS 39 Gripen for the first time on May 18).⁷⁹ They also achieved some key operational distinctions, most notably the authorization in September to fly overland in support of the CF-188's deep strikes, as well as providing fuel to the French aircraft that stopped Qaddafi's convoy while it was fleeing Sirte in October.⁸⁰

The RCAF's two CP-140s were similarly active. Providing a strategic picture of both the ground war and the situation at sea, the CP-140 detachment flew almost every day and ended the mission with a 99 percent serviceability rate, logging 179 missions and 1,403.1 hours in the air. Most of that time was divided between ISR and MPA missions, but the CP-140s displayed their versatility by performing psychological warfare operations with radio broadcasts over Libya as well as forward control for NATO attack helicopters and naval gun support to British and French warships.⁸¹ These latter roles were new to a platform that was designed to hunt Soviet submarines during the Cold War, and conducting these operations drew the CP-140s progressively closer to shore. Originally authorized to operate at least 21 miles [33.8 kilometres] from Libya's coast, the CP-140s were cleared to close to within four miles [6.4 kilometres] on September 18, followed by their first "dry" (over land) mission four days later.⁸²

Yet it was the adoption of a SCAR capability that brought the CP-140s their greatest acclaim. Although SCAR remained a CF-188 mission set, the CP-140s were tasked in the SCAR coordinator (SCAR-C) role. The CP-140 would carry a Fire Support Team (FST) or Forward Air Controller (FAC) (also known as Joint Terminal Attack Controller [JTAC]), which, after using the aircraft's powerful package of sensors and cameras to locate targets, then would coordinate with the CAOC and direct suitable strike aircraft to the area in question.⁸³ Having an airborne JTAC capability also was new to the RCAF. As a result, FST personnel from the United Kingdom (UK) carried out FAC duties during the CP-140's first SCAR-C mission on October 1. However, the RCAF quickly deployed its own JTAC team to Sigonella, which, having a British FST's certification, produced the first all-Canadian CP-140 SCAR-C mission on October 17.⁸⁴ In total, the Auroras

would fly 12 SCAR-C missions, three of which were flown by all-Canadian crews. Not only was this enough to "properly map out and codify" this new capability, according to a post-operation report, it showed how the CP-140 was "extremely capable in this role" and was a preferred platform by many FSTs "because of its enhanced capabilities and mission suite."⁸⁵ Indeed, the CP-140s proved so agile and flexible that one source characterized them as Mobile's "Cinderella stars of the show."⁸⁶

The RCAF had developed a number of new capabilities during Mobile, and on October 5, most of them were brought together over Bani Walid in a display of air-to-air integration that one subsequent analysis described as a "great day for the RCAF."⁸⁷ It was at that time that the CP-140 detachment, flying back-to-back sorties, managed to support NATO aircraft prosecuting seven targets over the course of three separate missions. The key from a Canadian perspective, however, was the CP-140s' ability to provide prestrike, full-motion video coverage and post-strike battle assessment of the four targets that were hit by the six CF-188s using their new JDAM capability. Moreover, a CC-150T handled the CF-188s' refueling prior to the strike. It was a defining moment during the mission; the Combined Joint Task Force Unified Protector (CJTJFUP) Combined Force Air Component Commander, at his morning brief on October 6, commented on "the outstanding contribution of Canada's efforts the previous day."⁸⁸

Although the CF-188s, CC-150s, CC-130s, and CP-140s collectively represented the RCAF's main contribution to Mobile, a word must be said about its other important operational commitments. Canadian personnel on NATO's E-3A airborne warning and control system (AWACS) aircraft, for instance, played an active part in directing the battle space over Libya. Some involved numerous Canadian assets, such as a dynamic targeting event on April 26. Having detected evidence of a regime attack near Misrata, the frigate HMCS *Charlottetown* forwarded this information to a Canadian weapons controller on an AWACS aircraft; the controller quickly assigned air assets to confirm this threat to a civilian-populated area. The result was that two Royal Air Force Tornados and four CF-188s successfully prosecuted these regime forces threatening Misrata.⁸⁹ A similar event occurred on May 30 when *Charlottetown* once again identified a threat to Misrata, this time from a loyalist vehicle firing rockets into the city. Much like the earlier occurrence, a Canadian AWACS controller orbiting in a NATO Boeing E-3A successfully vectored two CF-188s onto the target.⁹⁰

Nor should the CH-124 Sea King's part be overlooked. While control of the CH-124 Sea Kings aboard HMCS *Charlottetown* and that ship's replacement, HMCS *Vancouver*, rested with the Maritime Component Commander (MCC), these RCAF helicopters represented a force multiplier that helped the RCN enforce the arms embargo. Although serviceability and airframe limitations were problematic for *Charlottetown*'s aircraft, the aging CH-124s (first acquired in 1963) nevertheless proved particularly useful for tracking smaller vessels as well as extending both frigates' over-the-horizon radar capability. Yet, the CH-124's main strength lay in its ability to build situational awareness along Libya's coast for the RCN and other NATO navies. Providing "top cover" for naval

boarding parties was another function that rounded out the RCAF's multi-capable and flexible contribution.⁹¹

Canadians also were found in other key Alliance roles. For instance, the director of Strategic Plans within the Supreme Headquarters Allied Powers Europe (SHAPE), Brigadier-General Pierre St-Amand, was a Canadian. So, too, were some members of his staff, most notably the lead planner. Strategic Plans was responsible for monitoring security situations that had the potential to impact NATO. It was in charge of the standup and staffing of the OUP planning group, ensuring that Canadians were involved with their Alliance partners from the mission's earliest formation. As such, this team was instrumental in determining the contingencies that NATO potentially would face over Libya as well as the requirements needed to deal with such situations.⁹² Finally, many Canadian personnel served in direct support of Lieutenant-General Bouchard and in various positions at the Combined Joint Task Force (CJTF) HQ, as well as the Canadian contingent posted to JFC Naples.⁹³

Assessing Operation Mobile

A great many things clearly went right for the RCAF during Operation Mobile—particularly at the tactical level—but challenges naturally surfaced to provide lessons observed. Command and control was one such issue. Largely because of the speed at which the RCAF deployed, the lines of authority between the organization with administrative control over the mission, Task Force Naples, and the operational level staff at TFL HQ were not always clear.⁹⁴ The logistical support element (mission support flight) and four detachments that were deployed separately (rather than as a composite force) and in two separate locations with a limited communication network was something that further muddled the waters.⁹⁵ The solution to these growing pains was found in the draft Air Expeditionary Wing doctrine, and the new command arrangement, which took effect on August 7, 2011. It grouped the detachments, the MSF (logistical, administrative, and engineering services), and an Operational Support Flight (coordination of the employment of operational resources) together into the Sicily Air Wing. This wing, in turn, was responsible to Task Force Libeccio (TF LIB), which itself had been created by consolidating TFN and TFL into a single organization. The commander of this force, newly appointed Brigadier-General Derek Joyce, reported directly to CEFCON in Ottawa.⁹⁶

This arrangement supported the RCAF's AEW concept and doctrine—a number of logistical issues were resolved, given the single command layer and clearer delineation of authority, stronger communication between the detachments and the HQ, as well as improved support management. But a few concerns remained. One was that Brigadier-General Joyce was stationed in Naples, meaning that the senior Canadian commander no longer resided with the NATO Combined Force Air Component Commander (CFACC) in Poggio Renatico. While a Canadian presence was retained in the CAOC as an Air Coordination Element (ACE), the result of this transition was that direct support to

kinetic air operations became somewhat complex. Of course, in some measure this was offset by the relocation to Naples, which put Brigadier-General Joyce in close proximity to JTF OUP and allowed him to provide some level of support to Lieutenant-General Bouchard and his staff.⁹⁷ In any event, an ideal C2 structure for Op Mobile was recommended after the mission: "TF LIB should have been comprised of a Joint Task Force Commander, ACE, MCE [Maritime Coordination Element], and TF LIB HQ, co-located in Naples with the CJTFUP HQ, leaving an [Air Component Commander] in Poggio Renatico and an MCC on the CHA/VAN [*Charlottetown/Vancouver*]" (with clear tactical control authority on tactical sub-units).⁹⁸

Logistics and support requirements led to other important lessons for the RCAF, particularly because the speed of the deployment and its distance from Canada meant that it took time to position essential support aspects in theater. The MSF's arrival after the CF-188s and CC-150s was one challenge; another was supporting a force that was operating from four distinct and separate geographical locations.⁹⁹ The RCAF also identified manning as a subject worthy of closer analysis, particularly since some units faced personnel shortages, while others reported cases in which relatively junior members were employed in positions beyond their rank level. It was suggested, therefore, that headquarters and unit establishments in future deployments should be "as robust as possible, both in terms of personnel and experience level," as well as flexible so they can adapt to unexpected situations.¹⁰⁰ Moreover, it was further recommended that an entire MSF should be fully deployed and eventually reduced "as the mission evolves."¹⁰¹

Targeting and intelligence were other aspects of the mission that provided a number of observations for future Libya-like operations. The precision of targeting during Mobile was unparalleled and was the product of the strict no-civilian casualty policy, good intelligence, a careful targeting process, and the technical capabilities of the weapons used. Canadians were heavily involved in the targeting process; however, intelligence often was a challenge.¹⁰² National security restrictions among states, as well as a lack of connectivity to classified information networks, meant that not all nations were in a position to see each other's raw data. Without firsthand access it was, at times, difficult for some countries, such as Canada, to determine whether a nominated target met national requirements. The introduction of improved connectivity at Poggio Renatico, as well as the provision of a Canadian targeteer in the U.S./UK "targeting shop," certainly helped to identify the value of developing intelligence enablers for future missions.¹⁰³ It also resulted in suggestions to develop a purely RCAF targeting capability.

A similar conclusion was drawn regarding the RCAF's communication requirements. While communications during Op Mobile generally were good, individuals in the early stages of the operation often used BlackBerries as their primary source of contact with others. A suitable communication infrastructure, created literally from the ground up, naturally took time to establish; this led to a desire within the RCAF to develop a more robust communication suite that could be deployed at short notice.¹⁰⁴

RCAF and NATO: Lessons Observed

While most of the analysis related to the RCAF's lessons observed naturally focused on specific Canadian issues, some conclusions could apply to the Alliance as a whole. The usefulness of developing a NATO joint-targeting cell and an increased intelligence sharing capability among allies certainly was one important takeaway from the mission. The shortage of AAR, ISR, and long-range patrol aircraft assets also was keenly felt, as the tankers experienced a hectic operational tempo to keep up with demand, while the CP-140 and other Alliance surveillance aircraft often were split between the need to provide essential support to maritime tasks and ground situational awareness. Conversely, the value of innovative thinking and rapidly adapting to circumstances to produce either new capabilities or strategic effects was a common characteristic that should be repeated and specifically fostered during future missions. (For the RCAF, this manifested in the streamlining of JDAM procurement and evaluation process; adapting to the requirements of deliberate-dynamic targeting; the rapid certification for the CC-150 to fuel allied aircraft; and following the French and British example by using the CP-140 in the SCAR-C role as well as a naval gunfire support platform.) The same is true for the advice Lieutenant-General Bouchard provided on the key to successful NATO operations, such as OUP: "When working within a complex alliance ... it's important to 'play nice with all others in the playground [and] share your toys.'"¹⁰⁵

Op Mobile undoubtedly was a success for the RCAF, particularly since it demonstrated the effectiveness of various Canadian airpower concepts and capabilities. It indicated that the recently developed Air Expeditionary Wing doctrine not only will give the RCAF a considerable capability, but also should help solve a number of challenges that the air force faced during Op Mobile. Although Op Mobile was only able to partially validate this concept (many aspects of the future air expeditionary capability were still under development and could not be stood up), it did show how Canadian airpower was capable of providing the government and the Alliance with flexible, responsive, and agile effects. Moreover, it further suggested that anticipatory collective training of a deployable "skeleton" C2 team could prove its worth in the quick establishment of effective airpower in an expeditionary role while using the AEW elements to fully support the rapid onset of operations. Indeed, the emphasis being placed on expeditionary operations, along with the experience gained during Op Mobile, will help the RCAF prepare for other administrative and logistical issues—such as the nuances of support contracting outside of Canada, as well as ammunition storage restrictions and shortages—that it faced when operating in Italy.

Another key to the RCAF's success rested in its high level of air-to-air integration and interoperability, as was demonstrated through the CC-150s' and CC-130s' ability to provide fuel to almost every coalition nation; the CF-188s' joint strike missions; the CP-140s' ISR, MPA, and SCAR-C sorties; and the ACE's work with the CAOC. Finally, Op Mobile showed that the RCAF had achieved a good mix of multipurpose capabilities through the acquisition and modernization programs of the previous decade. Certainly, the conversion of CC-150s into strategic refuelers, the upgrading of the CF-188s and CP-140s with either new weapons or sensors suites, and the addition of the CC-177 for a greater

strategic airlift role have not only acted as force multipliers and strategic enablers, but also will allow the RCAF to continue to provide responsive, flexible expeditionary effects for the Canadian government and NATO in the years to come.¹⁰⁶ More specifically, however, it was the balance of capabilities contained within this force structure, along with the training and dedication of the air personnel involved, which allowed the RCAF to punch above its weight during Op Mobile. Of course, the same can be said of many other participating NATO nations, and as a result the strength of working and integrating seamlessly with Alliance partners was one of the key elements behind the RCAF's success.

Unprecedented acts of gratitude—such as flypasts and special tributes—left little doubt that the government saw the RCAF as an effective part in its Libyan foreign policy. The RCAF answered Canadian government calls for a quick response to protect Libyan civilians through its international and NATO commitments. Despite its size relative to its larger partners, Canada made contributions in areas in which NATO faced shortages (such as AAR and ISR roles) as well as in delivering kinetic effects in OUP. Lieutenant-General Bouchard's leadership also was a key factor to the success of OUP, as was the RCAF's ability to adopt new capabilities and roles as the mission evolved. That this was achieved in a particularly busy operational year—the RCAF also was involved in many domestic and international operations as diverse as Afghanistan, Haiti, and the Arctic—was the product of being able to provide what one analysis described as a “mix of the right people, with the right training at the right time, with the right equipment.”¹⁰⁷

Op Mobile indicates the RCAF has found a good balance to meet Canada's domestic and international needs, but a word of caution is required. While OUP provides some excellent lessons observed for both Canada and NATO, no two conflicts are ever exactly the same. It would be a mistake for Canadian policymakers to assume the mission sets that worked so well for the RCAF and RCN in Libya should automatically be applied to all future conflicts. Instead, each new global situation will come with its own unique requirements. The final lesson from Operation Mobile, therefore, is that its success should not place unrealistic political expectations on either the RCAF or on Canadian airpower.

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Abbreviations

AAR	air-to-air refueling
ACE	air coordination element
AEW	air expeditionary wing
AWACS	airborne warning and control system
C2	command and control
CAD	Canadian Air Division
CAOC	Combined Air Operations Center
Cdn Air Div	Canadian Air Division
CEFCOM	Canadian Expeditionary Force Command
CF	Canadian Forces
CJTFFUP	Combined Joint Task Force Unified Protector
DFAIT	Department of Foreign Affairs and International Trade
FAC	forward air controller
FST	fire support team
GBU	Guided Bomb Unit
HMCS	Her Majesty's Canadian Ship
HQ	headquarters
ISR	intelligence, surveillance and reconnaissance
JDAM	joint direct attack munition
JFC	joint force command
JTAC	joint terminal attack controller
JTF	joint task force
LL	lessons learned
MCC	maritime component commander
MPA	maritime patrol aircraft

MSF	mission support flight
NATO	North Atlantic Treaty Organization
Op	operation
OUP	Operation Unified Protector
R2P	responsibility to protect
RCAF	Royal Canadian Air Force
RCN	Royal Canadian Navy
SCAR	strike coordination and reconnaissance
SCAR-C	strike coordination and reconnaissance coordinator
TFL	Task Force Libeccio, until 6 August 2011
TF LIB	Task Force Libeccio, after 7 August 2011
TFN	Task Forces Naples
U.N.	United Nations
U.S.	United States
UK	United Kingdom
UNSCR	United Nations Security Council Resolution

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CHAPTER 2

RCAF Air Power over Libya: Making a Strategic Difference

By Brigadier-General Alain Pelletier, MSM, CD

Introduction

Who would have thought that almost 68 years after operating on the African continent, the newly reborn Royal Canadian Air Force (RCAF) and 425 Tactical Fighter Squadron (Taf F Sqn) would return to the Mediterranean to take part in a conflict? The difference between 1943 and 2011, however, was that this time it would not be Sicily facing the brunt of Canadian bombing from 425 Taf F Sqn, which was then based out of Tunisia; rather, Sicily would be the staging area for Canadian units in support of the United Nations Security Council Resolution (UNSCR) 1973 against Libya! The operation (op) in 1943, the Allied landing in Italy and Sicily, was called TORCH; the 2011 op would begin as Operation ODYSSEY DAWN (OOD) and later would be renamed Operation UNIFIED PROTECTOR (OUP), the North Atlantic Treaty Organization (NATO) mission to protect civilians in Libya. For Canada, the mission was to be named Op MOBILE and included the Canadian air and sea components to NATO. Both operations had similar actors: resolved allies against despot dictators.

Throughout the eight months that followed the commitment of Canadian Armed Forces (CAF) air and naval assets, the coalition's pressure on the Qaddafi Regime resulted in the removal from power of Colonel Muammar Qaddafi and his eventual death at the hands of the rebels.¹ During this period, the RCAF quickly brought to the fight, among its peers, a number of credible combat capabilities: the CF188 offensive capability, the CP140 maritime and land reconnaissance as well as the CT150 and CT130 air-to-air refuelling (AAR) support.² However, this rapid onset of combat was done at the expense of logistical sustainment using a nascent RCAF model of an air expeditionary wing (AEW); a model that was partially complete and hardly understood by many of the players in the CAF joint arena. In this chapter, I will attempt to relate the rapid and impressive deployment of Canadian air combat capabilities to Italy, while highlighting the growing pains associated with multiple shifts in the command and control (C2) structure and the lack of a trained and equipped RCAF deployable air task force headquarters (HQ).

Ramp-up to deployment

On 26 February 2011, my wife and I had just passed through security screening at Quebec's Jean-Lesage International Airport on our way to a much-anticipated cruise

in the Caribbean. As I picked up my personal effects, a dreaded ring tone came out of my Blackberry. My wife immediately gave me the "I told you to leave that gadget at home!" look. On the other end of the line was then-Commander of 1 Canadian Air Division (1 Cdn Air Div), Major-General (MGen) Yvan Blondin, the Canadian Joint Force Air Component Commander (JFACC)³ to Canadian Expeditionary Force Command (CEFCOM).⁴ The reason for his call was an urgent but sensitive staff check to assess the feasibility of deploying a "six-pack" of CF188s⁵ to support a coalition of the willing for an intervention in Libya, if requested by the Canadian government. I knew at that moment that our vacation would not be as relaxing as I had hoped and would likely not meet my wife's expectations! Also at that time, I had no idea that only three weeks later I would be landing in Germany to set up the Canadian Air Component Task Force that would be a key factor in accomplishing the NATO mission and defeating the pro-Qaddafi forces.

The staff check was a well-informed one, given that 425 Tac F Sqn was preparing to deploy a six-pack of CF188s to Iceland in late March 2011 in support of Canada's contribution to NATO's air policing mission; thus, many similar questions and problems had already been worked out. On 14 March, the squadron was given seven days' notice to move (NTM) warning in the event of a Government of Canada (GC) decision to commit forces. Less than three days later, on the morning of 17 March, a 48-hour NTM was received, followed by a 24-hour NTM at noon the same day. Needless to say, the pace of preparation was swiftly accelerated in order to get the aircraft and the crews fully ready to deploy for a mission mandate that was yet to be defined. In the evening of 17 March, following the government's decision to support UNSCR Resolution 1973, Canada committed to send six CF188 aircraft to Europe to join a coalition initially composed of the United States (US), France, the United Kingdom (UK) and Italy that would launch OOD against Libya. The CF188s⁶ left 3 Wing Bagotville, Quebec, on 18 March at 1230 hours (hrs) accompanied by two CC150 tankers. They would be preceded in theatre by a small air component HQ command staff.

Getting established

Planning for a deployment regularly presents uncertainties and challenges; the accelerated planning for Op MOBILE was no different and required flexibility in the initial execution given the short planning time, the lack of a designated deployable HQ staff and major unknowns such as host base location, conditions, deployment duration and mission mandate. At the onset of Op MOBILE, the only known variable was the number of CF188 aircraft to be thrown into the fight: a basic six-pack to be ready to employ in potential air-to-surface and air-to-air missions. The in-flight refuelling assets required to carry the fighters across the Atlantic were not initially scheduled to remain in theatre given that the recent AAR modification of the Polaris⁷ had yet to reach full operational capability. Some of the unknowns at the time of departure were: coalition members, coalition and Canadian assets available, location of our host bases, location of the Canadian

Air Component Command (ACC) HQ, the Libyan air order of battle as well as a number of other variables. At departure time, the only known facts were that the six-pack of fighter aircraft and two airborne tankers were on their way to Europe, that the advance party for my HQ (a major) was on his way to meet me at Ramstein Air Force Base (AFB), Germany, home of the 603 and 617 Air and Space Operations Centers (AOCs) responsible for coordinating US air assets in Europe and Africa respectively. Armed with this information and my BlackBerry, I set off on an Air Canada flight to Germany.

Upon arrival the morning of 19 March, my operations officer (Ops O) quickly established links with the United States Air Force's (USAF's) 617 AOC,⁸ while I liaised with the AOC commander as well as the UK and French task force (TF) commanders in order to gain an understanding of the situation and assess how Canada could best contribute to the fight. Since the majority of the last 24 hrs' coordination had been done within the diplomatic channels between Canada, Italy and NATO, it was no surprise that the coalition partners were astonished by our arrival. With no NATO or US email accounts, no office space or access to phone lines, our HQ of two rapidly got down to business using the only communication means available to coordinate our requirements: face-to-face dialogue and our Blackberrys.⁹ Initial coordination with the allies was hampered by the lack of access to the US classified network on which a lot of the campaign information resided.¹⁰ Fortunately, live access to the planners enabled the Ops O to coordinate the first sorties that would see Canadian employment on 21 March. Coordination of efforts and requirements with 1 Cdn Air Div, CEFCOM and our deployed assets in Sicily remained a challenge for the first few days due to the lack of access to communication equipment at the 603/617 AOC; the scarcity of communication assets in Trapani, Sicily; the limitations imposed by the no-cell-phone regulation inside the US AOC compound; and the limited battery life of our cell phones.

The GC's and the Chief of the Defence Staff's (CDS's) intentions were clarified during a video teleconference that took place between then-CDS General Walt Natynczyk and me on Sunday, 20 March, with less than 24 hrs to mission execution. Clear instructions were passed to the TF's leadership regarding Canada's level of involvement, the rules of engagement that would govern our actions during the mission and the direction contained in the CDS's targeting directive. For reasons of security, the items discussed will not be revealed here, but two elements struck me: the diligence put towards preventing collateral damage and the level of authority to be sought prior to mission execution when such a mission could result in civilian casualties in Libya. These decisions were retained at the highest levels of the CAF chain of command. Both were reflective of the Western approach to 21st century warfare and would have an impact on the targets assigned to Canada.

Bedding-down the CF188 in Italy required significant effort by the Canadian Ambassador to Italy and his military attaché, who exploited their diplomatic skills and military network in order to secure what would turn out to be prime ramp space in Italy during the air campaign—aprons for our fighter and air-refuelling assets. With the Trapani air base scheduled for closure by the Italian Air Force in the months to come,

hosting an unexpected detachment (det) of Canucks required a lot of goodwill and effective networking by both Canadian and Italian leadership in Trapani. Significant effort had to be directed towards supporting the det as well as coordinating building vacancy management and food services. The pressure on Trapani was compounded by the arrival of Royal Air Force assets and the onset of summer vacation in the region, leading to an increase in civilian air traffic and, therefore, additional ramp-space requirements. On 22 March, the Bagotville Mission Support Squadron (MSS) arrived in theatre. This unit was supported by the CEFCOM mission stand-up technical assistance visit (TAV) team, and between them the required expertise and manpower were available to resolve some substantial issues such as fuel supply for the aircraft, long-term personnel accommodation on the local economy and local contracting. Some of these activities could have been done by the MSS if it had the required lead time to deploy and arrive in theatre before the arrival of the operation's main body.¹¹ However, in this case, the RCAF "leaned forward" so much that the operation's main body landed and started combat operations prior to the establishment of a baseline logistics footprint. This resulted in a logistics, administrative and financial backlog that would require a significant amount of catch-up for the next five to six months by CEFCOM, the ACC HQ and the det.

Just as the set-up in Trapani relied on goodwill, the same was true at Ramstein AFB. Concurrent with the operational planning and preparation of our assets for offensive actions in Libya was the establishment of a ruggedized HQ with a basic but functional command, control and communication (C3) suite. The first was accomplished on Sunday with the arrival of my deputy, the TF legal advisor, A2 as well as a small cadre of support staff that trickled in during the next 24 hrs. Overall, a total of 10 members formed the initial cadre that would lead and coordinate the onset of combat air operations in Libya for the first five days. The follow-on establishment of a C3 capability proved more difficult given the location and size of the TF HQ (a modular tent) and the communications-security limitations imposed by the 603/617 AOCs. By the end of week one, with the help and initiative of our A6 as well as a dedicated and knowledgeable warrant officer from the Ramstein Canadian Det, we were able to have some form of secure communication with Canada and our CF188 Det, but the phone lines and email network remained extremely dependent on the goodwill of the small satellite package that was provided to us.

More assets committed

As mentioned earlier, when our two newly converted tankers, Airbus A310s equipped with the probe and drogue refuelling systems departed Canada, they had limited operational capacity in that the few crews and the aircraft had not yet reached their initial operational capabilities and were only authorized for "tow refuelling," sufficient to carry our fighters across the Atlantic and get them to their destination. At that time, the aircraft and crews were not cleared for different refuelling procedures nor were they cleared to refuel allied aircraft. Within a few days, clearance and

qualifications were quickly resolved and the crews were allowed to be tasked in support of CF188s as early as Monday, 21 March. How this was achieved was unknown to me, but I am sure the deployed crews' experience as well as the extensive RCAF expertise with probe and drogue refuelling tactics, techniques and procedures (TTP) were part of the operational airworthiness risk-mitigation considerations. It was decided that, given the limited amount of allied refuelling assets in theatre, the Polaris would remain in Sicily for the foreseeable future. In less than two weeks, our tankers would be supporting additional allied fighter aircraft.

As we were rapidly adapting to the evolving situation on the ground (and with the arrival of a number of allied assets in Italy as well as at the 603/617 AOC at Ramstein AFB), CEFCOM and its JFACC were quickly making plans to provide an enhanced Canadian contribution to support the UNSCR 1973. The same day the CF188s were leaving Canada, 405 and 407 Long Range Patrol (LRP) Squadrons received a warning order to deploy to Italy. As the air component commander, I was informed of the potential deployment of the LRP det in theatre on 22 March, but the mission and C2 remained nebulous. The LRP det arrived in Italy on 25 March. As was experienced with the CF188 deployment, the final bed-down location and the missions of the aircraft and crew were still being sorted out between Canada and our defence attaché in Italy, who did his best along with the ambassador to gain access to much-coveted ramp space in Trapani, in order to have a single Canadian deployment location that would reduce our logistics footprint. The location remained contentious: Trapani, despite its very limited ramp space, offered the preferred sustainment option due to its collocation with other Canadian assets, while Sigonella, Italy, as a United States Navy installation familiar with P3 aircraft operations and in close proximity to the mission area, showed potential to be the best staging base from an operational perspective. The CP140s were finally bedded-down in Sigonella. Although a preferred location for the CP140 operations, this decision resulted in a dispersed deployment which stretched the Canadian logistic lines between four different locations: Ramstein, Trapani, Sigonella and Naples, the latter being where the eventual NATO Joint Task Force (JTF) HQ was located. The arrival of the Sigonella Det, as it came to be known, coincided with the visit of the Canadian JFACC, MGen Blondin, who flew in from Canada on a CC144 Challenger to observe the onset of our operations and visit the deployed personnel. His visit to Ramstein AFB to observe our modest and nascent HQ allowed me to travel to our two dets in Sicily.

We're moving again

The week of 27 March was characterized by the campaign leadership transition from the US to NATO, as intended by the US President on 22 March and agreed to by NATO on 23 March. This transition, which was considered by most coalition contingent commanders as being too early in the conflict as well as difficult with operations just ramping up, brought about a number of uncertainties to each nation due to the lack of clarity regarding the lines of command for support and combat assets while

operating under Article VII of the NATO agreement in a coalition that included a few non-NATO partners (Sweden, United Arab Emirates and Qatar). The transition would see the operational coordination¹² of coalition air assets being passed from the 617 AOC Commander, MGen Margaret Woodward, to the NATO Air South Combined Force Air Component Commander (CFACC), Lieutenant General (USAF) Ralph Jodice, based at Izmir, Turkey.

The C2 transition for air assets brought uncertainties regarding location of the NATO AOC for the air campaign and the role of the coalition's national air component commanders, also referred to as national representatives or national red card holders.¹³ Most of the national representatives wanted to be collocated with the CFACC and would have liked to see the air operations controlled from the NATO HQ Allied Air Command Ramstein, where an AOC floor was available and which would have enabled CFACC and coalition partners access to USAF capabilities residing at the 603/617 AOC. The end-state location of the CFACC was not known for a number of days and resulted in a series of moves of the Canadian Air TF HQ, which had initiated a move of its growing personnel and communication suite to the basement of the NATO HQ Allied Air Component Ramstein, adjacent to the NATO AOC floor. The move was completed on 1 April and marked the first time our HQ had reliable and redundant classified and unclassified communication connectivity with Canada and our dets since our arrival in Europe. This positive step would be short-lived, since five days later, the Canadian TF HQ would once again move in order to be collocated with the OUP CFACC final location at NATO Combined Air Operations Centre (CAOC) 5 at Poggio Renatico, Italy.

Command and control

The initial C2 construct of the Op MOBILE Air Component, later labelled as Task Force Libeccio (TFL), was designed by 1 Cdn Air Div with a small footprint sufficient to support fighter combat operations. The initial design had a total of 28 positions to be collocated with the coalition CAOC. However, due to the limited space available at the 603/617 AOC as well as the unknown operating location of the upcoming NATO AOC, only a limited number of Canadian ACC HQ personnel were initially deployed to support the onset of the combat operations in the first week of the conflict. The full complement of TFL HQ personnel arrived in theatre after 26 March and quickly made their way to Poggio Renatico to support the stand-up of the full Canadian ACC HQ following the transition to NATO leadership.

The minimal staff of 10 present in Ramstein at the onset of operations proved insufficient to sustain a 24/7 manning requirement to support combat operations while properly supporting the logistics requirements of the Trapani Det, the upcoming arrival of the CP140 Det, the three MSSs with associated requirements and the preparations for the HQ's move to CAOC 5 in Italy. This limited air staff, which had never worked

or exercised together, compounded by the two quick HQ moves that took place in less than one week, resulted in staff that focused on the HQ internal requirement and functionality instead of the requirement of the TF as a whole. Fortunately, the small A3 cell was able to carry on with the coordination and planning of the beefed-up Canadian air assets in a seamless manner, resulting in continuous and effective air operations during the moves.

The shortage of personnel was not the only limitation. Following the establishment of a short-lived reliable communication suite in Ramstein, TFL was once again plagued by a lack of a robust communication suite at CAOC 5. This resulted in a reduced reporting capacity that was heavily reliant on our small communication package, which quickly proved insufficient for the size of the TFL HQ, its requirement for secure communication networks and its bandwidth requirement. Although a landline and greater satellite communication capabilities were requested, it took a few more months to achieve a reliable solution that would be delivered by the Italian host base and our own Canadian Joint Signal Regiment. This limitation in communications and reporting capability sparked issues with CEFCON's expectations, which were likely based on the steady and reliable flow of information experienced with the well-established TF in Afghanistan.

Moreover, the slow arrival of the MSS in theatre nearly three weeks after the arrival of the first aircraft resulted in backlogs of financial and logistics issues, which were starting to become a concern for the det commanders, CEFCON and me. Some of these problems could have been resolved with an early deployment of the full MSS. As members of the MSS were starting to make their way to Italy, a table of organization and equipment (TO&E) freeze was mandated by CEFCON to control costs and reconcile the positions and personnel deployed for Op MOBILE. Although required, this freeze came at a time when support personnel were most needed and resulted in a number of staff assistance visits (SAVs) and TAVs temporarily deployed to Italy to help resolve some of the TF backlogs.

In reaction to the reporting problem, the administrative and financial backlogs as well as personnel accountability, CEFCON directed the stand-up of Task Force Naples (TFN), which would be located at the JTF HQ Naples and responsible to support Lieutenant-General Charles Bouchard as the NATO JTF Commander while providing administrative support to TFL. With this additional TF, CEFCON was now required to deal with three TFs in the same theatre: Charlottetown (the Naval component), Libeccio (the Air component) and Naples (with the administrative control and administrative support of all personnel in theatre). The effect achieved by the stand-up was contentious, since after 7 May, operational control of assigned forces was retained by the Maritime Component Command (MCC) and the ACC and, therefore, operational matters were left outside of TFN. As depicted in Figure 1, this C2 construct proved to be convoluted and the air component commander and commanding officer of TFN were left with the harmonization of issues that spanned both TFs.

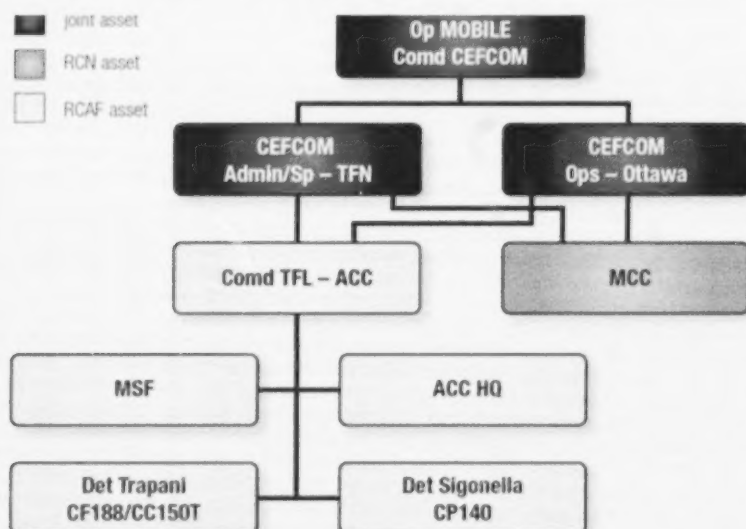


Figure 1. Op MOBILE C2 structure, 7 May 2011

The saga of Op MOBILE C2 was to see its third chapter written when a reorganization of the TFs was once again mandated by CEFCON. This third organizational change was effective on 6 August, when TFL and TFN merged together into a single TF called Task Force Libeccio (TF LIB), with its HQ in Naples under the command of a brigadier-general (see Figure 2). The new TF LIB also included an air component coordination element collocated with the CFACC at CAOC 5 in Poggio Renatico and an AEW commanded by a lieutenant-colonel with its HQ in Trapani. The AEW was responsible for the three aircraft dets (CF188, CP140 and CC150) as well as the MSS and newly formed operations support squadron (OSS).

It is the author's view that one element was left unresolved following the 6 August reorganization—the lack of a Canadian JTF for the Libyan theatre. The new C2 construct would have been the prime opportunity for CEFCON to bring the joint fight to bear instead of having to deal with two separate TFs. This chapter of Canadian joint force employment was, unfortunately, left absent from the Op MOBILE story.

Nascent targeting expertise

Although the fighter force had experienced targeting during the Kosovo campaign, unlike some of our NATO partners, the concept of red card holder as well as the use of targeteers were still not fully entrenched in RCAF doctrine. Moreover, despite some valuable experience gained by the CAF intelligence community during the Afghanistan conflict, intelligence cells at the tactical level had not fully developed the skill sets required

to fight a kinetic war with modern targeting-analysis tools. Only a few trained and qualified targeteer personnel were on hand and available to support our operation, resulting in a delay of two months before the first targeteer-qualified non-commissioned member was made available to TF LIB HQ and its A2 cell.

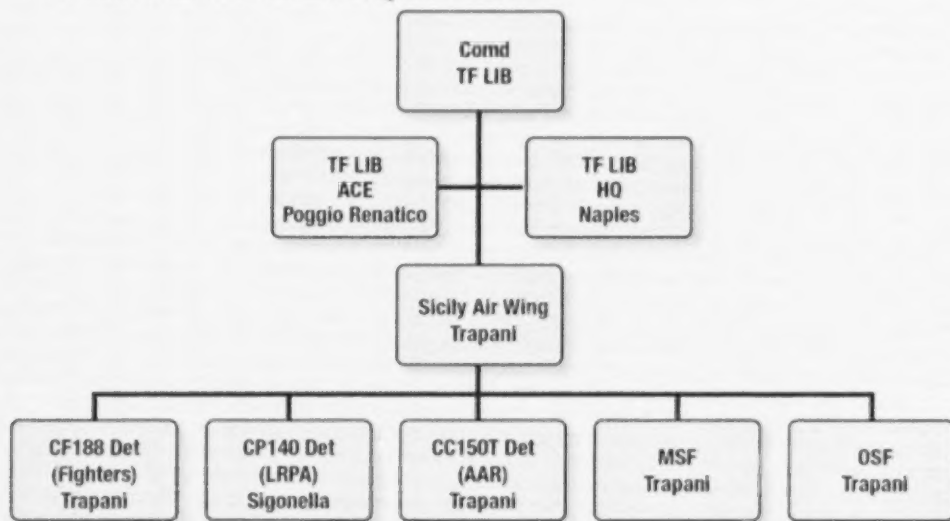


Figure 2. TF LIB command structure, post-August 6, 2011

The result was an initial heavy dependence on USAF and allied-provided intelligence and target folders, with A2 staff spending much time on building PowerPoint presentations to prepare for the targeting board of the TF and not enough time on intelligence analysis of the evolving situation, given the theatre of operations.¹⁴ The intelligence analysis difficulty was also compounded by the late arrival of a Canadian Level III secure facility in Poggio Renatico, which denied the TF the ability to access information necessary to enable effective decision making for the targets assigned to Canada. This was a fact not to be taken lightly given the zero tolerance by Canadian leadership for civilian casualties and the requirement to refer to the CDS or his designate if any were foreseen. Thanks to a flexible and adaptive staff as well as the proactive involvement of the TF legal advisors, TF LIB HQ was able to advance the Canadian targeting process to a level that proved acceptable and responsive to the rapidly evolving fight. Hence, targets on the joint prioritized target list assigned notionally to Canada would receive a TF LIB legal review and then be assessed by the small TF targeting team that included a TF intelligence operator and an aircrew member. If this assessment deemed there was a likelihood of any collateral damage or civilian casualties, a targeting board would be convened and the results sent to CEFCOM for review and presentation to the CDS or his designate for final vetting. A good understanding of Canada's national reservation and vetting process by the CAOC staff, in combination with effective networking by the TF HQ staff, enabled a much quicker turnaround from initial target review to final Canadian vetting. This

proved essential given the evolution of targeting from static target to a more dynamic targeting process developed by the allies in order to quickly prosecute time sensitive targets.

The CP140 crews also faced a steep learning curve, not only in terms of maximizing the use of their new intelligence, surveillance and reconnaissance (ISR) kit provided by the Aurora Incremental Modernization Block II Program but also regarding the delivery of a relevant ISR product to the CAOC ISR Division. The CAOC ISR Division, being limited in its processing manpower, was unable to carry out raw assessment of products delivered by allied aircraft. Less than 24 hrs after identifying the issue, the Canadian ACC received an ISR package from the Aurora Det that contained a storyboard with highlighted items of interest during the latest sortie, along with short supporting video and images. This quickly became the coalition standard, since the storyboard was used at subsequent CFACC and CAOC handover briefs and reproduced by most allied nations. In this case, raw analysis was carried out post-mission by the mission support crew of the CP140 Det. Video and stills were assembled and then pushed to the CAOC.

Air expeditionary operations

Air expeditionary operations are not new to the modern RCAF. The Canadian Air Force has been involved in various levels of deployed air operations for over three decades, whether as part of a coalition in an air-centric conflict (Op ALLIED FORCE) or as part of a larger joint, combined or coalition TF in support of another component such as the JTF air wing that was part of JTF Afghanistan. Both the Op ALLIED FORCE Air Component and the JTF Afghanistan Air Wing had their respective command structures based on the air power requirement, the support provided by the coalition as well as the background and perspective of the respective Canadian air component commanders. During the last decade, the Canadian Air Force has also perfected its deployed mission support capability with the development of an MSS concept, which was operationalized through a number of missions in support of Canada's Camp Mirage deployments.

Since the initial stand-up of the 2 Air Expeditionary Squadron in Bagotville, the unit has progressed the enhancement of the RCAF expeditionary capability with the development of the AEW concept, which includes three branches: the OSS or operations support flight (OSF), the MSS and the air dets, which bring with them the air assets. All of these air expeditionary concepts were known to most RCAF officers around the wings; however, most of it was not captured in RCAF doctrine and was not linked to the deployable Joint HQ of 1st Canadian Division in Kingston, Ontario, nor was it well understood by some of the CEFCEM staff. Hence, when it came time to establish a Canadian air component with an AEW, the concept did not fully resonate with all parties involved.

At the onset of the operation, given the differing requirements of the three geographically separated locations (Poggio Renatico, Trapani and Sigonella) and very limited command-staff structure across all three locations, it was decided that the MSS would

be collocated with the largest det (Trapani) and would support all three locations while reporting to the TF LIB Commander. This allowed for an honest-broker prioritization of the MSS's limited human resources at a time where the backlog of administrative, financial and logistics issues to be resolved was still significant across the det's and the TF HQ. As the operation evolved, and with the assistance of a number of SAVs and TAVs to supplement a reduced MSS establishment, a steady state was nearly achieved in July 2011 with respect to logistics and administrative requirements. Moreover, following two 56-day rotations of personnel, which in some ways compounded the administrative burden due to the flux of incoming and outgoing personnel, the command element at Trapani matured sufficiently to allow for a transition to a more effective and robust AEW design.

By late July, TF LIB was successful in establishing an AEW which comprised four flights of air assets (CF188, CP140, CC130 and CC150T), along with a reduced MSS and a tailored OSS, all under the command of an AEW commander located in Trapani and supported by a minimal air staff. This AEW commander reported to the TF Commander with a tactical control relationship with the NATO CAOC and the Canadian Air Coordination Element (ACE).

Conclusion

The rapid deployment of Canadian air assets to the Libyan theatre had a positive strategic impact for Canada among its NATO partners, providing combat-ready assets that were in place and prepared to participate in combat operations within 72 hrs of a government decision. It also demonstrated the ability of Canadian air assets to seamlessly integrate in NATO or coalition operations given the similarity of TTP. However, such a rapid deployment and onset of combat operations came at the expense of a solid logistical preparation that would have enabled the indefinite sustainment of the combat capability deployed to Italy. Unlike Op ALLIED FORCE, where the Canadian contingent was able to use months of logistical preparation in addition to a host base that provided the majority of the operational and logistical services, Op MOBILE became heavily dependent at the onset on the minimal support capability integral to the deployed units, in the absence of an early deployment of the MSS and OSS. Moreover, the lack of an organized ACC structure prior to deployment, compounded by the triple move of the air component / TF HQ as well as the lack of an adequate communication suite resulted in a fragile command structure at the beginning of the operations.

Although the transition to a NATO-led command structure may have added to the command challenge, the lack of a single Canadian JTF commander was, in the author's view, a more significant issue and resulted in too many TFs reporting to CEFCOM for the same theatre. In light of the above, it is paramount for the RCAF to continue its evolution and indoctrination of the AEW concept while organizing a basic air task force HQ that would be trained and equipped to quickly deploy and employ air assets at a moment's notice, all within a potential JTF construct.

Nevertheless, the deployment of RCAF air power assets to the Libyan theatre provided the coalition with flexible fighter, refuelling and ISR assets that enabled the pursuit and achievement of the coalition's operational objectives while delivering uninterrupted combat sorties for the first 40 days, flying a total of 755 fighter sorties, 136 ISR sorties and offloading more than 14.9 million litres of fuel in the first five and one-half months of employment!

A fighter pilot, Brigadier-General Pelletier served with 433 Tac F Sqn and 410 Tactical Fighter Operational Training Squadron before taking command of 425 Tac F Sqn. While flying the CF188 Hornet, he has deployed to Italy on Op ECHO (1998) and Op ALLIED FORCE (1999). Staff tours included Executive Assistant to the Chief of the Air Staff and Director of Air Requirements at National Defence Headquarters, Ottawa. In addition to commanding a squadron, he served as the Wing Commander, 3 Wing Bagotville, Quebec. During Op MOBILE, he commanded Task Force Libeccio at the rank of colonel. Brigadier-General Pelletier is currently the Deputy Commander, North American Aerospace Defence Command's Continental United States Region, Tyndall Air Force Base, Florida.

Abbreviations

AAR	air-to-air refuelling
ACC	air component command
ACE	air coordination element
admin/sp	administrative support
AEW	air expeditionary wing
AFB	air force base
AOC	Air and Space Operations Center
C2	command and control
C3	command, control and communication
CAF	Canadian Armed Forces
CAOC	combined air operations centre
Cdn Air Div	Canadian Air Division
CDS	Chief of the Defence Staff
CEFCOM	Canadian Expeditionary Force Command
CFACC	combined force air component commander
comd	commander

det	detachment
GC	Government of Canada
HQ	headquarters
hrs	hours
ISR	intelligence, surveillance and reconnaissance
JFACC	joint force air component commander
JTF	joint task force
LRP	long range patrol
LRPA	long-range patrol aircraft
MCC	maritime component command
MGen	major-general
MSF	mission support flight
MSS	mission support squadron
NATO	North Atlantic Treaty Organization
NTM	notice to move
OOD	Operation ODYSSEY DAWN
Op	operation
OPCON	operational control
Ops O	operations officer
OSF	operations support flight
OSS	operations support squadron
OUP	Operation UNIFIED PROTECTOR
RCAF	Royal Canadian Air Force
RCN	Royal Canadian Navy
SAV	staff assistance visit

Tac F Sqn	tactical fighter squadron
TAV	technical assistance visit
TF	task force
TFL	Task Force Libeccio, until 6 August 2011
TF LIB	Task Force Libeccio, from 7 August 2011
TFN	Task Force Naples
TTP	tactics, techniques and procedures
UK	United Kingdom
UNSCR	United Nations Security Council Resolution
US	United States
USAF	United States Air Force

Notes

1. The term "rebels" refers to the armed opposition to Qaddafi under the leadership of the National Transitional Council.

2. The venerable Sea King was also employed as an embarked air detachment on-board Her Majesty's Canadian Ships CHARLOTTETOWN and VANCOUVER but fell under the command of the Canadian Maritime Component Commander.

3. The Canadian JFACC is also the force generator of RCAF assets in support of CEFCOM contingency operations.

4. CEFCOM changed its name and role in 2012 to the Canadian Joint Operations Command (CJOC).

5. A six-pack of CF188s is considered the minimum standard deployment package for Canadian fighter contingency operations outside Canada.

6. Although it was initially intended to take six CF188s across, the use of an airborne spare aircraft is usual practice. As it turned out, the spare was flown all the way to Europe and kept as a maintenance reserve for the duration of the conflict, a decision which paid off, given some of the maintenance and sustainment issues the detachment suffered for part of the deployment.

7. The Polaris is an Airbus A310 employed by CAF to transport passengers and cargo and for AAR. Only two aircraft of a fleet of five have received the AAR modification and are designated CC150T.

8. The 617 AOC was responsible for coordinating air activities for OOD. Given its Africa focus, 617 AOC's main missions were air transport; therefore, they had to rely heavily on the support and facilities of the 603 AOC, where the majority of air combat expertise resided. For more on OOD, see Joint and Coalition Operational Analysis, *Libya: Operation Odyssey Dawn (OOD): A Case Study in Command and Control* (Suffolk, VA: Joint and Coalition Operational Analysis, 4 October 2011).

9. In the days following our arrival, we were able to gain access to the Ramstein Canadian Detachment's sole computer on the Defence Wide Area Network on a nointerference basis as well as access to their secure telephone unit, the STU-III. Although these assets initially proved valuable, they were not a sustainable solution to our communication requirements given the det's location in relation to the 603/617 AOCs.

10. There was a lack of releasable information by the US to NATO and non-NATO partners as well as a lack of network capability to pass classified information to both NATO and non-NATO partners.

11. Following the arrival of the MSS's lead element, the det leadership's lack of corporate understanding of the MSS role resulted in some friction between unit-integral and task-force level logistic and administrative support.

12. It is referred to as operational coordination instead of operational control (OPCON) because a number of countries, including Canada, had retained OPCON of their air assets and only delegated tactical control to the 617 Commander. A similar C2 construct was retained post-NATO transition.

13. Red card holder is a slang term for the national mission/target acceptance authority and is the individual who, in accordance with national direction and rules of engagement, accepts the responsibility to undertake a mission or engage a target. The term is indicative of holding up a red (stop) card to indicate that a mission/target will NOT be accepted.

14. Tim Ripley, "ISTAR's Future Following 'Unified Protector,'" *Jane's Defence Weekly* (November 30, 2011), 23. The coalition intelligence community was ill-prepared to fight in Libya, with much of the theatre intelligence being built on the fly; therefore, it was dependent on day-to-day analysis of intelligence products that would reside with some of Canada's key allies.

CHAPTER 3

Tactical Fighter and ACE Commander Perspectives

By Colonel Eric Kenny, MSM, CD

Major-General (MGen) Derek Joyce, Brigadier-General (BGen) Alain Pelletier and BGen Paul Ormsby have provided excellent accounts of what took place during Operation (Op) MOBILE, including discussing many of the major lessons that were identified. For Op MOBILE, I was fortunate to have filled two key roles: as the Task Force Libeccio (TFL)¹ Trapani Detachment Commander from 18 May to 9 July 2011 and then as Task Force Libeccio (TF LIB) Air Coordination Element (ACE) Commander in Poggio Renatico from 31 August to 1 November 2011. My intent is to add my perspective/observations working for these commanders (comds) while providing some additional context and lessons that I learned over four months of deployment. As was done by the other writers, I will refer to specific people in this article using their ranks at the time of the operation, realizing that some have been promoted or retired from the Canadian Armed Forces (CAF).

Pre-deployment

At the time of my deployment to Trapani, Italy, for Op MOBILE, I was the Commanding Officer (CO) of 409 Tactical Fighter Squadron (Tac F Sqn) at 4 Wing Cold Lake, Alberta. My first indications of a possible deployment to support operations over Libya occurred at the end of February 2011. At the time, 409 Tac F Sqn was deployed to Salinas, Kansas, to support the forward air controller (FAC) course. Colonel (Col) David Wheeler, 4 Wing Commander, called me to advise that a staff check was taking place for a potential deployment of CF188s. I was told that 409 Tac F Sqn was not required to change our posture, as the staff check determined that 425 Tac F Sqn led by Lieutenant-Colonel (LCol) Sylvain Menard at 3 Wing Bagotville was prepared to go. They were already scheduled to deploy to conduct North Atlantic Treaty Organization (NATO) air policing in Iceland at the end of March, so the staff check had them shifting locations if an operation was to be approved.

On 14 March, a few days after returning from Kansas, I attended a video teleconference held between Commander 1 Canadian Air Division (1 Cdn Air Div), MGen Yvan Blondin, and the wing commanders of 3, 4, 14 and 17 Wings to discuss the evolving staff checks and potential operation. As pointed out by Col Pelletier, it was at this time that 3 and 8 Wings were put on seven days' notice to move for a possible deployment. At the same time, we discussed options to complete the Iceland NATO air-policing mission (Op IGNITION). On 17 March, Op MOBILE was approved by the Government of

Canada (GC), so it was decided that 409 Tac F Sqn would backfill the Op IGNITION mission, departing nine days later with the advance party. I was to be the Comd for Task Force Iceland, replacing LCol Menard who would be the Trapani Detachment Commander for Op MOBILE.

Due to the short notice of the deployment, it was decided that if Op MOBILE lasted longer than a few months then 409 Tac F Sqn would backfill 425 Tac F Sqn in Trapani, Italy, after the first 56 days, and we would remain for six months, thereby establishing a six-month rotation after that point.

I, therefore, focused the squadron on the priorities: first, deploy approximately 85 personnel from the squadron as part of the 144 personnel deploying to Keflavik, Iceland, for Op IGNITION at end of March, followed by preparing approximately 110 personnel to deploy by mid-May 2011 to Trapani for Op MOBILE (several 409 Tac F Sqn personnel would do both Op IGNITION and MOBILE).

Over the month of April, I had many conversations with LCol Menard to determine the best table of organization and equipment (TO&E)² to support the Op MOBILE fighter detachment. 425 Tac F Sqn had deployed with their Op IGNITION TO&E, which was based on a one-month deployment conducting a different mission set than the one being experienced in Italy. Therefore, we agreed to increase the fighter-detachment maintenance TO&E to a more robust and sustainable level to meet the anticipated six-month deployment cycle (an increase of 11 maintenance positions). This TO&E was submitted through Col Pelletier (TFL Comd) for onward transmission to Canadian Expeditionary Forces Command (CEFCOM)—at about the same time as Col Ormsby was standing up Task Force Naples (TFN). I will come back to this point, as we would later encounter issues with Canadian Forces Tasks Plans and Operations (CFTPOs)³ being created and approved in time for our arrival.

On 3 May 2011, I departed Iceland and flew back to Ottawa to provide Comd CEFCOM, Lieutenant-General Marc Lessard, a backbrief on our Op IGNITION deployment. At the same time, I completed a key-leader engagement (KLE)⁴ in preparation for Op MOBILE—both were completed on 4 May. I then flew to Trapani, Italy, along with my advance party, arriving on 6 May.

Deployment

Over the month of April, LCol Menard and I worked on a handover plan from 425 Tac F Sqn to 409 Tac F Sqn that would allow a smooth transition while simultaneously supporting Op UNIFIED PROTECTOR (OUP) missions. We agreed that the advance party should arrive approximately seven days before the first main-body rotation. We then sought a minimum of one week between each of the estimated two to three chalks (flights) required to move remaining personnel. As it turned out we were

provided two CC150 Polaris chinks in total with only three days between each chink. Therefore, we received approval to fly a more robust advance party on commercial air-lift. The first wave of the main body arrived on 16 May, and the second wave arrived on 19 May. Within hours of each wave of main-body personnel arriving, the outgoing wave departed, making it very difficult to facilitate an effective handover. On 18 May, I officially took command of the Trapani Detachment from LCol Menard. Thanks to the superb efforts of LCol Menard and his entire team, we were able to transition into a well-orchestrated operational mission. Administratively, there were numerous challenges—once again, something I will discuss later.

For the first two months, Col Pelletier placed the Mission Support Flight (MSF) under the command of the Trapani Detachment Commander, LCol Menard. Prior to my arrival, Col Pelletier made the decision to have the MSF report directly to him as the TFL Comd, since they were supporting Poggio Renatico, Sigonella and Trapani. Major (Maj) Daniel Gendreau, the Officer Commanding MSF, was working full out to support three locations with minimal staff.

Although I was appointed the Trapani Detachment Commander, the personnel under my direct command consisted of the CC150 Tanker (T) Detachment (two CC150T) and the CF188 Detachment (seven CF188). In addition, two days after taking command, we had two CC130Ts arrive in Trapani, with the departure of one CC150T a few days later for long-term maintenance.

Operations

At first glance, the administrative (admin) and logistics (log) support structure appeared unwieldy and inefficient. Although I reported directly to TFL Comd, Col Pelletier, I relied heavily on admin and log support provided by both the MSF commanded by Maj Gendreau and TFN commanded by Col Ormsby. As pointed out by several commanders, relationships were key to overcoming command and control (C2) structures. I knew Col Pelletier for most of my career, and Col Ormsby had deployed from Cold Lake—my home base at the time. In addition, the deputies for all three comds (TFL, TFN and TF LIB) were officers I had worked with many times before—LCol Norm Gagné (TFL), LCol Mike Barker (TFN and TF LIB) and LCol Mike Rafter (TF LIB). I quickly established a great rapport with Maj Gendreau, as we were collocated in Trapani.

LCol Menard and his team had worked with the MSF to build a new operations building in Trapani that housed the air-to-air refueling (AAR) and fighter detachments. This allowed us to better integrate mission planning with intelligence support. Operations remained steady but at a slightly reduced pace to what was experienced during the first two months. Yearly flying rate (YFR) and weapons stocks were adjusted with the understanding that the operation could last a long time. This is an important aspect in any operation, and as we see with Op IMPACT, YFR and weapons stocks drive commitments

to number of sorties per day, length of sortie and number of targets we agree to strike in a deliberate fashion. Many times throughout Op MOBILE, we had air-to-ground weapons arriving via CC177s just in time for missions taking place the following day—the weapons-expenditure rate was significant, but with great success and accuracy.

Over the month of May and June, I had many conversations with Col Pelletier on possible C2 models to rectify the challenges we were experiencing. Not to put too fine of a point on the late and reduced admin support provided to Op MOBILE, in mid-June we were directed to account for all personnel in Trapani—we were unable to provide an exact number back to TFL and TFN. With only two resource management support clerks in the MSF (responsible for three locations, multiple technical and staff assistance visits [TAVs and SAVs], plus many personnel deployed without a CFTPO [a point I mentioned at the beginning]), the clerks were not able to provide an accurate count. I found myself meeting new groups of individuals every day or so, all sent to help us work out the admin and log concerns. There were several TAVs/SAVs that arrived without our knowledge or request. They were sent by CEFCOM to “help.” As the Trapani Detachment Commander, I had no direct admin/log personnel working for me—they worked for the TFL Comd as part of the MSF. I could account for the AAR- and fighter-detachment personnel, but not the rest. I remember discussing this frustration with the TFN team who were visiting us from Naples to help resolve our accountability issues. By the time I left on 10 July, we still had 40 fighter-detachment maintenance personnel in theatre not on a CFTPO (official deployment tasking order). I believe CFTPOs were not issued for these personnel due to misunderstanding of the approval process, the rapidity of the deployment, and the lack of admin support in theatre. Although we submitted amendment requests through Comd TFL, there was a need for TFN, CEFCOM and 1 Canadian Air Division Headquarters (1 Cdn Air Div HQ) Winnipeg to all look at the request prior to endorsing it. In addition, once approved, it took time for someone to physically enter all the information into CFTPO and then match names to positions. The system did not appear agile enough to make quick changes to accommodate an ever-evolving mission (i.e., the addition of CP140s after the initial deployment of CF188s and CC150Ts and then the addition of CC130Ts, etc.).

What was needed was an air wing comd with a mission-support element (MSE) and operations-support element (OSE) along with some key advisors (flight safety, public affairs, lessons learned, etc.), just like we operate wings back in Canada. As previously discussed by the other comds, this air wing model was socialized with TFL, TFN and CEFCOM and ultimately endorsed with the restructure that took place on 7 August 2011—creating TF LIB.

On 21 June, the Comd 1 Cdn Air Div visited us in Trapani. Col Pelletier and I had a late-night discussion with MGen Blondin about our concerns with perceived delays in acquiring a global positioning system (GPS) guided bomb for the CF188. We felt our operational flexibility was being hampered by weather, and we projected increased concerns based on the historical fall weather cycle over Libya. Laser-guided bombs worked

very well but could not be dropped when clouds or weather interfered with the laser. A GPS-guided bomb allowed us to very accurately and effectively strike static targets in all weather conditions. After a long discussion, MGen Blondin fully agreed with our recommendation and directed his staff to prepare a briefing for his review upon his return to Canada. Within months, CAF acquired a supply of Guided Bomb Unit (GBU)-38 (500 pound or 225 kilogram) and GBU-31 (2000 pound or 900 kilogram) bombs and then tested, certified and shipped them into theatre for use. This was followed by on-site training for the personnel in theatre during a one-week period in September. Although they were only used for the last month of the conflict, they provided an enhanced capability right at the time the weather in Libya turned for the worse. This was a significant accomplishment that required buy-in at all levels in CAF. Interestingly, these same bombs would be used with great accuracy over Iraq and Syria during Op IMPACT.

After being promoted a few weeks earlier, I was replaced by LCol Daniel McLeod on 9 July 2011. LCol McLeod became CO 409 Tac F Sqn and took over as the Trapani Detachment Commander. He would become the Sicily Air Wing (SAW) Comd on 7 August until completion of the mission on 31 October 2011.

I returned to Cold Lake on 10 July and moved that week to Ottawa. On 28 August, I returned to Op MOBILE, but this time to replace Col Pelletier in Poggio Renatico as the ACE Comd. I now reported directly to BGen Derek Joyce, Comd of the newly formed Task Force Libeccio (TF LIB).

Return to Op MOBILE

Prior to deploying to Op MOBILE the first time, I was advised that my initial deployment would last approximately two months, as I was to be promoted. I was also asked to return to Op MOBILE in mid-to-end August to take on the role of the ACE Comd and Canadian red card holder (RCH),⁵ replacing Col Pelletier.

My initial deployment to Trapani provided me an excellent perspective on what the CF188, CC130T and CC150T detachments were accomplishing as well as the tactical view from the cockpit. I also visited the Combined Air Operations Centre (CAOC) in Poggio Renatico in June to understand the targeting process from the operational level.

At the end of August I conducted another KLE with Comd CEFCom and returned to Italy with the new TF LIB C2 structure in place. The relationship between the ACE Comd and TF LIB Comd was in the process of being formalized, and after a few days of handover with Col Pelletier and a meeting with BGen Joyce, my reporting relationship and tasks were clearly defined.

As the ACE Comd, I had two main roles: one, be the senior CAF air liaison/advisor to the OUP Combined Forces Air Component Commander (CFACC), Lieutenant-General

(Lt Gen) Ralph Jodice, United States Air Force; and two, be the senior CAF RCH for the Chief of the Defence Staff (CDS) as per the CDS Targeting Directive. In simple terms, the CDS Targeting Directive provided clear direction to the RCH on what types of objects constituted legal targets that could be assigned and struck by CAF CF188 weapons without the need to seek higher-level approval. If asked to strike a target not specifically approved in the CDS Targeting Directive and for specific target sets defined in the directive, the RCH needed to seek CDS approval in advance. It should be noted that objects that were assigned as targets (either deliberate or dynamic) were also approved by the OUP Comd or his delegate, prior to being assigned to any nation for consideration.

As the air advisor/liaison, I acted as BGen Joyce's eyes and ears at the CAOC and provided advice on how Canada could best contribute to the evolving air mission. This included providing advice on sortie rate, length, mission types, rules-of-engagement change requests, Canadian-specific operational restrictions (altitudes, locations, etc. based on threats), matching C130T/C150T to appropriate receivers as well as coordinating CP140M taskings between the Combined Forces Maritime Component Commander and CFACC. We worked closely with the SAW and TF LIB HQ to ensure a coherent message was delivered by Canada.

As the senior RCH, I was responsible for approving all deliberate target strikes by CF188s using a Canadian targeting board which involved my A2 (Intelligence), A3 (Operations) and legal advisors (LEGADs). To sustain 24/7 strike operations, I had a deputy RCH, LCol James Todd, deputy A2 and two LEGADs. If for some reason I was not available to approve deliberate strikes, then my deputy would approve them. Either I or LCol Todd sat in the CAOC, along with a LEGAD, every time our aircraft were flying. This allowed us to approve dynamic target strikes for targets of opportunity discovered by the CF188s as well as dynamic retasking of the CP140M, CC130T or CC150T based on new CAOC priorities.

I had several LEGADs during my short time as senior RCH. A decision had been made to rotate the LEGADs every 56 days. Due to the rapid onset of the mission and the many competing rotations of personnel, no one was truly on a synchronized rotation cycle. Ideally, we would have seen the entire RCH team train and deploy together for a set period of time. As it was, we had a mix of personnel on two-, three-, four- or six-month deployment timelines. This made it difficult to coalesce as a team, and there was no collective pre-deployment training for the ACE organization. Under the Royal Canadian Air Force's (RCAF's) newest doctrine, the ACE we established for Op MOBILE is now incorporated as a mix of the air task force (ATF) HQ and the coordination element (CE) personnel. The CE personnel are generally collocated with the CAOC, whereas the HQ personnel are collocated with the ATF comd (which may or may not be collocated with the CAOC).

During my time as ACE Comd, I was proud of the work we did to get approval to fly the CP140M overland as discussed by MGen Joyce. The approval came after a visit by the new 1 Cdn Air Div Comd, MGen Alain Parent, where we had an opportunity to

discuss the concept of operations in a face-to-face setting in Italy. This was preceded by many discussions and emails between TF LIB HQ, CEFCOM and 1 Cdn Air Div to ensure the threat level and risks were fully understood, along with the mission benefits to OUP. The air-to-ground threat briefings provided to the CFACC and those provided to higher headquarters in Canada did not necessarily match. I believe this divergence in view had to do with access to different levels of intelligence among participating nations, individual intelligence analysis and assessments as well as the level of risk/tolerance between participating nations.

We also worked to get approval for the CC150T to fly over Libya to support coalition fighters doing deep strikes in the southern portions of the country. After several weeks of discussions with staff and commanders, this was also approved by CEFCOM. Unfortunately, the approval came just as that particular mission wrapped up. Therefore, the CC150T was never used in this role. However, it was used in this role over Iraq and Syria during Op IMPACT, and I believe the discussions we had during Op MOBILE helped prepare us for this potential mission set—that is, AAR over “hostile” territory.

Our mission ended late on 21 October. I received a call from BGen Joyce advising me that we were to terminate our air missions effective immediately. Qaddafi had been captured and killed the previous day and NATO was in the process of defining the final mission termination criteria. Air-to-ground strikes had effectively ceased, and the only missions flying were those providing overwatch and airborne strike capability in case civilians were targeted—which did not occur after Qaddafi was killed. Early on 22 October, I met with Lt Gen Jodice, the CFACC, to advise him that we were no longer flying but that we would remain in theatre with our aircraft until the mission was officially terminated by NATO—something that took place about nine days later. This break in our operations allowed us time to plan mission termination and collect lessons. It was also an opportunity to reflect on the successes experienced during the months of operations.

Lessons

As I write this article, I am able to reflect on the lessons identified during Op MOBILE and implemented for Op IMPACT. I say that because I was deployed as the initial rotation (Roto 0) Air Task Force – Iraq Comd for Op IMPACT. Exactly three years to the day after OUP was officially terminated by NATO (31 October 2014), we launched our first combat sorties over Iraq for Op IMPACT with two CF188s, one CC150T and one CP140M.

The C2 challenges we faced in Op MOBILE were studied by the Canadian Forces Aerospace Warfare Centre in Trenton and captured in doctrine. This was not done in isolation—rather, this doctrine was developed closely with joint doctrine and in particular with 1st Canadian Division in Kingston. Therefore, when I deployed to Kuwait on the operational/tactical reconnaissance at the beginning of October 2014, I already

knew how the ATF and air expeditionary wing (AEW) could be structured and how they could be plugged into a joint task force (using Contingency Plan [CONPLAN] JUPITER). The trick was finding the right balance for the specific mission. For Op IMPACT, we came in strong with admin and log support as an ATF, enabled by joint support teams such as the Joint Operations Support Group, Canadian Forces Joint Signals Regiment and the Airfield Activation Surge Team (AFAST) of 2 Wing Bagotville. The ATF consisted of an HQ (primarily A-Staff and specialists), OSE, MSE, CE and three air detachments (CF188, CC150T and CP140M). The RCAF has developed a high-readiness training model to ensure ATF/AEW HQ, MSE and OSE personnel are trained and ready to deploy on short notice. In addition, 2 Wing always stands ready to deploy an ATF, AEW and/or AFAST to stand up a mission on very short notice in case a new team needs to be trained when the RCAF has multiple larger missions taking place simultaneously.

One of our lessons identified during Op MOBILE was the need to have formalized training for RCH personnel deployed to support kinetic fighter operations. These teams are referred to as the target engagement authority (TEA) for Op IMPACT and in our newest joint doctrine. For Op IMPACT, a team of six (two TEAs, two LEGADs and two intelligence officers) is formally trained and deployed for a six-month period to provide 24/7 support to deliberate and dynamic strikes by CF188s. Although I was comfortable with our role as RCH during Op MOBILE, the seriousness and implications of approving kinetic strikes required a formal training process. In my opinion, training and deploying as a team allows each member to understand their role and work more effectively together.

Finally, rotating large detachments or organizations out within 56 days of starting major operations is not conducive to aiding the admin components that come with deployments. In my opinion, it often makes sense to have certain smaller components (theatre activation teams, etc.) rotate within a shorter period of time, but larger detachments should rotate on a less frequent basis (i.e., six months). Each situation will be unique, but having high-readiness units designated, trained as well as physically and mentally ready to deploy on short notice provides the flexibility required to meet longer mission durations.

I believe CAF and, in particular, the RCAF learned a lot from Op MOBILE, which ultimately set the conditions for success during future missions such as Op REASSURANCE and Op IMPACT. Each mission will likely require a different C2 structure to fit within a joint and/or combined context. However, having doctrine that describes the ATF and AEW concepts with scalable options to fit into different joint and/or combined structures provides the backbone to identify, train and equip high-readiness RCAF units to meet any mission assigned by the GC. It also allows the RCAF to clearly explain how it deploys to force employers such as the Canadian Joint Operations Command. Finally, by having the ATF/AEW model entrenched in contingency plans such as CONPLAN JUPITER, we are able to train all the components required for larger operations.

I was privileged to work for great commanders during my time at Op MOBILE. At the same time, I was humbled by the highly motivated and professional personnel who made the mission so successful despite numerous C2, admin and log challenges.

A fighter pilot, Colonel Kenny served with 433 Tac F Sqn and 410 Tactical Fighter Operational Training Squadron before taking command of 409 Tac F Sqn in 2010. While flying the CF188 Hornet, he deployed to Italy on Op ECHO (1998) and Op ALLIED FORCE (1999) and more recently to Iceland as part of Op IGNITION (2011). Staff tours included Deputy Wing Operations Officer at 4 Wing Cold Lake; A3 Fighter at 1 Canadian Air Division Headquarters; and Deputy Director of the Air Operations Control Centre, Kabul, Afghanistan. During Op MOBILE, he deployed first as the Fighter Detachment Commander and then at his current rank as the Air Coordination Element Commander. Currently the Wing Commander, 4 Wing Cold Lake, Colonel Kenny deployed to the Middle East as the Air Task Force – Iraq Commander from October 2014 to April 2015.

Abbreviations

1 Cdn Air Div	1 Canadian Air Division
AAR	air-to-air refueling
ACE	air coordination element
admin	administrative
AEW	air expeditionary wing
AFAST	Airfield Activation Surge Team
ATF	air task force
BGen	brigadier-general
C2	command and control
CAF	Canadian Armed Forces
CAOC	combined air operations centre
CDS	Chief of the Defence Staff
CE	coordination element

CEFCOM	Canadian Expeditionary Force Command
CFACC	combined forces air component commander
CFTPO	Canadian Forces Tasks Plans and Operations
CO	commanding officer
Col	colonel
comd	commander
CONPLAN	contingency plan
GBU	Guided Bomb Unit
GC	Government of Canada
GPS	global positioning system
HQ	headquarters
KLE	key-leader engagement
LCol	lieutenant-colonel
LEGAD	legal advisor
log	logistics
Lt Gen	Lieutenant-General, United States Air Force
Maj	major
MGen	major-general
MSE	mission-support element
MSF	mission support flight
NATO	North Atlantic Treaty Organization
Op	operation
OSE	operations-support element
OUP	Operation UNIFIED PROTECTOR
RCAF	Royal Canadian Air Force
RCH	red card holder

SAV	staff assistance visit
SAW	Sicily Air Wing
Tac F Sqn	tactical fighter squadron
TAV	technical assistance visit
TEA	target engagement authority
TFL	Task Force Libeccio, until 6 August 2011
TF LIB	Task Force Libeccio, after 7 August 2011
TFN	Task Force Naples
TO&E	table of organization and equipment
YFR	yearly flying rate

Notes

1. **Task Force Libeccio (TFL)** initially comprised the CF188 and CC150 detachments at Trapani, the CP140 detachment at Sigonella and an air component headquarters at Poggio Renatico. It was in place for Roto 0, from 19 March to 7 August 2011. **Task Force Libeccio (TF LIB)** was in place for Roto 1, from 7 August to 31 October 2011. It comprised the TF LIB Headquarters, the national command element at Naples, the Air Coordination Element at Poggio Renatico, the CF188 and CC150 detachments at Trapani as well as the CP140 detachment at Sigonella.

2. A TO&E is a document that prescribes a unit's organization, staffing and major equipment. Normally estimated prior to a deployment, it can be modified as required to adjust to changing circumstances.

3. CFTPO is the software that coordinates the tasking process: from the request for augmentation, through to the provision of a soldier, sailor, airman or airwoman.

4. KLE is a process by which the leaders charged with executing an operation are prepared for the operation through specific briefings, training and discussions.

5. Red card holder is a slang term for the national mission/target acceptance authority and is the individual who, in accordance with national direction and rules of engagement, accepts the responsibility to undertake a mission or engage a target. The term is indicative of holding up a red (stop) card to indicate that a mission/target will NOT be accepted.

CHAPTER 4

One Dog to Kick: Task Force Naples

By Brigadier-General Paul Ormsby, OMM, CD

Introduction

When I received the call asking if I was available to deploy to Italy to participate in Operation (Op) MOBILE, I was serving as Commanding Officer (CO) of the Aerospace Engineering Test Establishment in Cold Lake, Alberta. My previous attempts at wrangling a deployment for this operation turned out to be fruitless for a number of reasons, and I watched with some envy as my friends and colleagues once again packed their squadrons, wings and belongings for overseas. However, as the operation expanded, so did the need for commanders (comds) at many levels.

The article that follows is my personal account of the mission I was given, the people who achieved it and my perception of the meaning it has for the Royal Canadian Air Force (RCAF) and the Canadian Armed Forces (CAF) today in terms of operations. When I refer to specific people in this article, I have chosen to use their ranks at the time these events occurred, noting that many have since been promoted or have retired. In 2011, the titles CAF and RCAF had yet to be re-introduced, so I have used the titles in effect during this period. Lastly, I would also like to acknowledge the kind assistance of Colonel (Col) Mike Barker in the preparation of this article.

The mission and its context

When North Atlantic Treaty Organization (NATO) and coalition operations against the Libyan regime began under the auspices of United Nations Security Council resolutions 1970 and 1973, on 31 March 2011, there were already two Canadian task forces (TFs) in the theatre of operations: Task Force Libeccio (TFL),¹ headquartered in Ramstein, Germany, and later moved to Poggio Renatico, Italy, on 6 April and TF Charlottetown,² a single-ship TF deployed in the Mediterranean Sea. Both TFs had deployed from Canada earlier as part of the American-led Op ODYSSEY DAWN and remained on to support NATO's efforts, known as Operation UNIFIED PROTECTOR (OUP) and in Canada as Op MOBILE.

By early April, the number of Canadian Forces (CF) personnel deployed was between 600 and 700 depending on the daily movements of those arriving in theatre for the long

term and those for technical or staff assistance visits (TAVs and SAVs). This all occurred during the Arab Spring and a time when the CF was still heavily involved in operations in Afghanistan while supporting a large number of smaller operations globally. It became evident to Comd Canadian Expeditionary Forces Command (CEFCOM), Lieutenant-General (LGen) J. G. M. "Marc" Lessard, that his headquarters (HQ) in Ottawa would not be in a position to provide adequate support to all of these operations simultaneously. To support Op MOBILE, a separate support organization would be established in theatre to relieve the existing TFs of as many functions as possible, thus acting as "CEFCOM forward" for support issues. On 12 April 2011, CEFCOM directed the formation of Task Force Naples (TFN), collocated with LGen J. J. C. "Charlie" Bouchard's OUP headquarters, in Naples, Italy, to execute these functions.

I reported to CEFCOM HQ on 11 April as the new Comd TFN. During our key-leader engagement, the Deputy Commander of CEFCOM, Major-General (MGen) J. A. J. Parent, explained some recent events that led CEFCOM to make the decision to establish TFN and the three tasks it would have. First, I was going to Naples to backfill the senior national representative (SNR) position vacated by Brigadier-General (BGen) André Viens who had been transferred to the NATO Combined Air Operations Centre (CAOC) in Poggio Renatico. This was a period of turbulence and transition for the Combined Force Air Component Commander (CFACC) and the CAOC due to the consolidation of the CAOC's components from Ramstein, Germany, and Izmir, Turkey, to Italy. At the request of LGen Bouchard, BGen Viens was transferred from his duties as a CF officer in Naples to a NATO officer position in Poggio Renatico where he essentially assumed functions similar to those of the CAOC director. The net effect was CEFCOM's loss of its detachment commander in Naples as well as its senior Canadian representative to the operation.

MGen Parent described some other challenges CEFCOM was looking to address. His early assessment was that our forces left Canada with not only too few support personnel but also too few with experience and skill supporting CEFCOM deployments and these factors were an issue. While everyone was trying to do the right thing, in some cases it had become counterproductive. For example, in one instance, aircraft equipment and spares had been ordered by personnel in theatre directly from home wings rather than through CEFCOM J4. The equipment eventually arrived after 13 days; however, had it been requested via the J4, it likely would have arrived in less than a week because CEFCOM had the authority to set the priorities for equipment loads on military sustainment flights out of 8 Wing Trenton. As I would discover later, the issue was not only with the deployed personnel but also with CEFCOM. The staffs in CEFCOM HQ and Italy were talking, but they were not necessarily communicating. As my Chief of Staff, Lieutenant-Colonel (LCol) Mike Barker would later say: "the Air Force didn't get CEFCOM, and CEFCOM didn't get the Air Force." (Perhaps after so many years focusing on the Afghanistan mission, this might have been inevitable to some extent.)

My second task, therefore, was to establish a TFN component that could coordinate support at a theatre level, acting as CEFCOM's front office. When it came to

support, MGen Parent said he was looking for "one dog to kick." The relationship of this organization to TFL and TF Charlottetown would be one of administrative control³ (ADCON) only. Though it would mean at times that TFs commanded by officers of equal rank might be subordinate to me for this purpose and though this might be a little unusual, we would need to make it work. The good news was the fact that I had known Col Alain "Data" Pelletier, Comd TFL, since the 1990s when we served at 4 Wing Cold Lake together. I believed there would be no reason why he and I could not work out any issue, and indeed this was ultimately the case. For the purposes of this article only, Figure 1 illustrates the command and control (C2) structure for the CF organizations in Op MOBILE.

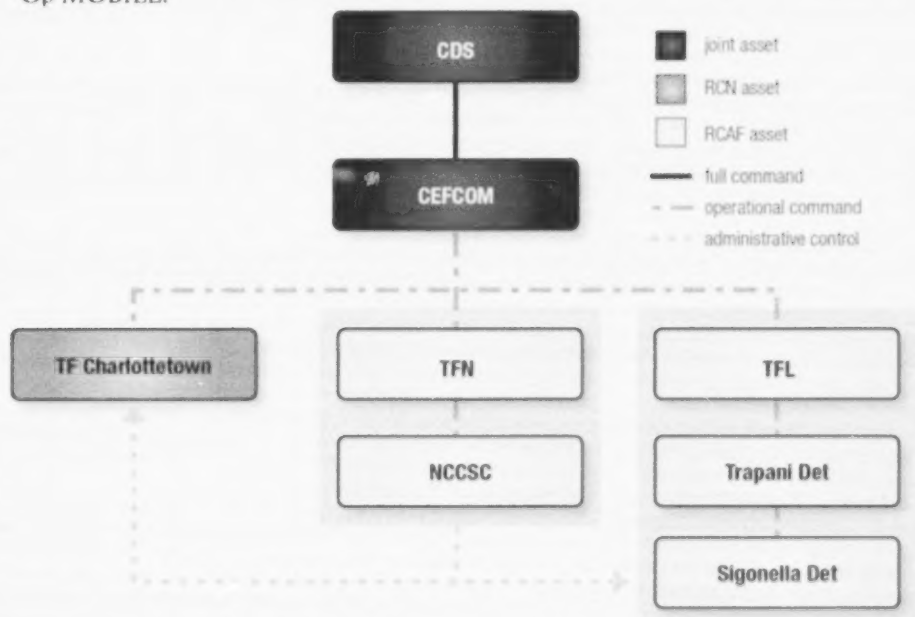


Figure 1. CF C2 for Op MOBILE

My third task was to act as CO for all CF personnel assigned to the support component as well as those working in LGen Bouchard's HQ in Naples. Canada had been providing personnel to this HQ in ever-growing numbers to fill holes and to ensure LGen Bouchard had every chance of success.

The final direction MGen Parent gave outlined what I was not to do. I was to have no direct role in the conduct of air operations by Canada; this was to remain the responsibility of TFL for land-based aircraft and Commander (Cdr) Craig Skjerpen, CO Her Majesty's Canadian Ship (HMCS) CHARLOTTETOWN for the Sea King Detachment under his command. I would also have no part in the targeting process.

Establishing the support component

I arrived in Naples on 12 April 2011 and began meeting key members of the staff. The majority of personnel already on the ground were from 1st Canadian Division Headquarters (1 Cdn Div HQ) in Kingston. They had been instrumental in establishing the initial liaison with NATO HQ and its components as well as supporting BGen Viens in his role as SNR. In addition, personnel in trades such as linemen, drivers and resource management support clerks (RMS Clks), all in small numbers, were also in Naples along with CF officers who were deployed to work in LGen Bouchard's HQ. Most notable though was the lack of Air Force personnel among 1 Cdn Div HQ staff. Many of the Army members of the HQ staff had extensive experience, owing to multiple deployments, but few had been part of operational air missions. In the weeks that followed, we worked to build their knowledge and understanding of the Canadian Air Force and air operations in general as well as how our Air Force fit into the overall campaign plan. Still, we could not realistically bring them to a level where they could manage general support operations throughout the theatre. I remained worried that without this expertise on the ground, we would soon be risking mission failure. To their credit, the 1 Cdn Div HQ team performed very well, and because the Air Force had no ready equivalent, we pressed on.

The support component operated out of the old Canadian Military Family Resource Centre, next to the Officers' Mess where LGen Bouchard had established his HQ. It had limited office space in three separate rooms. It housed our servers and secure information technology systems and acted as a changing facility (we traveled in civilian clothes to and from the base); conference area; operations desk; and a place to host the early visitors we had, including the Chief of the Defence Staff (CDS) General Walt Natynczyk. The principal functions of the detachment to that point were reporting on the campaign LGen Bouchard was executing, supporting OUP's nascent intelligence group (done superbly by LCol Kirk Bland), liaising with the Combined Force Maritime Component Commander's HQ, monitoring the movements of Canadians in and out of theatre, and providing LGen Bouchard with personal protective services.

In late April, CEFCOM informed me that this component would be called the National Coordination Centre and Support Component (NCCSC). The following week, CEFCOM approved this mission statement which my Chief of Staff, LCol Mike Barker, and I had drafted:

NCCSC will enable TF NAPLES, TF LIBECCIO and TF CHARLOTTETOWN mission continuity and success as part of Op MOBILE by providing administrative, logistics, and CIS [communication and information systems] support and sustainment functions to these and any subsequent TFs assigned to this Operation.

We believed the phrase "continuity and success" was essential to the mission statement to say that the NCCSC could not allow any failure in sustainment to cause a mission failure. There is no mention of theatre-level financial responsibilities in the mission statement, as this was the one authority that Comd CEFCOM retained.

CEFCOM approved the mission statement on 28 April 2011. Afterwards, I was asked if the late approval of the mission statement was a concern to me. It was not, because I believed I had clear verbal orders from MGen Parent prior to my deployment, and we were communicating almost daily with CEFCOM. We were aligned with Ottawa's expectations based on the feedback we were getting, so the approval of the mission statement was a formality in my mind.

During those early days, the level of effort between supporting the other TFs and simply establishing and supporting ourselves was about 50:50. There was little in the way of effective infrastructure or secure communications between the Canadian TFs or even with CEFCOM, adequate accommodations was a chronic issue, as was sorting out the financial authorities and systems we were going to use. While we undertook to improve that ratio, we also began working on developing the ADCON relationship with TFL and TF Charlottetown by visiting their locations in Italy. I knew that some did not fully understand what the TFN or NCCSC roles were, and I suspected that some might feel we were taking over responsibilities they believed to be theirs. For a very small number of personnel, both were true, and we realized that the only way to dispel any doubt would be to deliver the support we aimed to deliver. By far, the majority of people we began working with were glad to have us on the team, and the NCCSC was able to get off to a solid start.

A key effort soon became finding the personnel in Canada with the skills we required and getting them deployed as quickly as possible to Naples. The Air Force was supportive on this account in the quality of the people it provided when they could be found. However, a great frustration was the declaration that certain people with the skills we needed were "unavailable" due to their upcoming posting in the approaching active posting season (APS) or "too critical" to be posted following the APS due to loss of experienced personnel from their units during the APS. It was difficult to understand how this requirement so regularly trumped the need to support overseas operations.

Despite some of these frustrations, we did make headway. We found additional office space on the base which the Base Commander, Colonel Luigi Bodini, Italian Air Force, allowed us to have for free if, in exchange, our linemen would help his linemen install network cabling in an adjacent building needed by LGen Bouchard's staff. So said, so done. If we could get the people, at least we would have a place for them to work. A team of CF construction engineers (CE) on its way home from a TAV in Trapani was also diverted at our request to get the long empty office spaces in shape in just a matter of days, achieving our full operational capability (FOC) date of 10 May 2011 on time.

In my capacity as the SNR, I had my first of many meetings with LGen Bouchard on 13 April 2011. I had met LGen Bouchard before when I was a squadron CO and he was Comd 1 Canadian Air Division. He had what one keen observer described as "that necessary obstinacy every general should possess," which I believe made him successful

as the Combined Joint Task Force Commander in a highly charged political-military environment. I will not devote much more of this article to my role as SNR or my working with LGen Bouchard. I only raise it at this point to say that a large portion of my time was spent on these duties as well as support activities.

Doing the job

The NCCSC was organized as an A-staff covering A1 (Personnel), A2 (Intelligence), A4 (Logistics), A6 (Communications) and A8 (Strategic Plans and Programs), the latter for TFN only. In addition, an orderly room and a modest transport section were established under the master warrant officer who ran our HQ functions and reported to the Chief of Staff. We continued to operate a 24/7 operations section that monitored the movements of all Canadians in and out of theatre, provided emergency contact services for all Canadian personnel, managed message traffic to and from CEFCON as well as drafted the theatre's daily reports.

In early May, we began to see the arrival of experts on our A-staff and started to hit our stride with officers such as Major (Maj) Terry Sokolowski (A1), Maj John Lewis (A4), Maj Shane Pasiecznyk (A6), Maj Natalie Woodruff (A8) and Maj Yvonne Pratt (CE) to name only a few. They began to visit the detachments in Poggio Renatico, Trapani and Sigonella to establish their working relationships and better understand the situation. They also began working on issues such as a secure communications facility in Poggio Renatico and weapons storage requirements at Trapani, a shared civilian-military airfield. On the personnel side, policies and actions for travel, leave, home leave travel assistance (HLTA), welfare and recreation, medical repatriation and force management were undertaken. Of these, force management / table of organization and equipment (TO&E) control proved very difficult. The number of people moving in and out of theatre was largely unmetered at the start and without coherent oversight. Amplifying the problem was the lack of consistency in the policy governing deployment length. While aircrew had a predictable rotation policy, it was the exception. The lean organization originally deployed from 3 Wing Bagotville to support its personnel was not designed to handle force management on this scale.

NCCSC was given the task of determining how many people were in theatre and who they were. The CDS had set the limit for deployed personnel at 700, so a number on this order could be expected. My first thought was this was something we could knock off in a week; how difficult could it be? I directed the other TFs to conduct what amounted to a census of their personnel. From this, we would establish a baseline number after which we would only need to make daily adjustments based on rotations, TAVs and SAVs in and out. It was not to be. For the entire time I was in theatre, we never had an accurate reconciling of the status under which our personnel had deployed. For example, determining how many were on TAVs or on temporary duty proved to be elusive. The reasons for these problems were many, including intermittent

access to tools such as the Canadian Forces Tasking Plans and Operations (CFTPO) software, the lack of personnel who knew how to use it, the speed with which the operation began as well as the quick pace of movements in and out of theatre. Frustrated by the entire affair, at one point CEFCON froze TO&E deployments and sent its J1 to Naples and Sicily twice in an effort to resolve it. After the second attempt, I am pretty sure the J1 left as equally defeated as we had felt at times. And though we eventually settled on an official headcount of the numbers on the ground, I was never entirely confident of its veracity.

One of the significant non-operational problems in theatre was the financing of the operation. It was clear that the typical Air Force model of short-term deployments funded mostly with credit cards issued to its crew commanders and administration staff was starting to fail. This deployment was much larger, occurred on much shorter notice and, as a result, was underestimated in terms of the effort to sustain it. In Trapani, unpaid invoices for air-to-air refueling by Canadian fighters from Royal Air Force tankers were piling up quickly. In Sigonella, the young logistics officer I met was unsure how to open a bank account in a foreign country, which in turn was causing issues regarding pay and allowances, something that was done in cash at the start of the operation. This subject often arose during video teleconferences (VTCs) with CEFCON. On one occasion, LGen Lessard asked me why so many bills were unpaid in Sicily and what I was going to do about it. The principal reason was easy to explain: it was symptomatic of the larger problem that there was simply not enough properly qualified staff deployed. As far as what could be done about it from Naples, that answer was equally simple: without theatre-level financial authority I was unable to act outside my own TF, and I recommended that he provide it to me. LGen Lessard acknowledged the issue, but it was an authority he was not yet prepared to relinquish because he was considering a new command structure that would take this into account. He asked me to do what we could to assist the other TFs nonetheless.

Prior to this VTC, we had been working with the detachments in the country, sending small teams of RMS Clks and our A8 from Naples to Trapani and one team to Poggio Renatico to assist in clearing the backlog of bills, invoices and claims. The personnel in these locations had done their best to keep up, but it had been too much, and the NCCSC was fortunate to have very experienced professionals in this area. Ironically, even though this was the one authority our TF was not given, it was where I think TFN made its greatest mark in achieving its goal of relieving the other TFs of their burdens. Bank accounts were established, funds began to flow more easily and backlogs were driven down to a manageable level.

To this point I have not discussed our support to HMCS CHARLOTTETOWN. She was a single administrative and logistics unit requiring very little help from TFN. We maintained a regular routine of communication and information sharing, and as HMCS CHARLOTTETOWN spent the majority of its time at sea during its deployment, its issues were equally self-contained and easily dealt with by its CO.

Throughout our overlapping tours, Col Pelletier and I also stayed in regular contact to ensure we were consistent with the direction we were giving to our TFs as we tried to solve some of these issues. TFN was the newcomer in theatre with the rare construct of ADCON over TFL and TF Charlottetown. Naturally, there was some hesitation in the other TFs among those who were not familiar with this type of relationship and by some who questioned the need for it at all. Col Pelletier and his two chiefs of staff who served while I was there, LCol Norm Gagné and LCol Martin Breton, were invaluable in reinforcing the message that when it came to supporting Canadians in theatre the NCCSC was in fact CEFCON forward. I knew Norm and Martin well from past tours, so I must take this opportunity once more to emphasize how good relationships can be key to collective achievement.

Moving towards unity

Even so, it was clear that having three separate TFs was far from efficient. CEFCON HQ still retained theatre-level financial authority and had the final say on all logistics matters. In addition, while I was the SNR, I was not part of the operational chain and, therefore, all such decisions had to be made either by Col Pelletier in Poggio Renatico, Cdr Skjerpen at sea or in Ottawa. LGen Lessard advised Col Pelletier and me that a change to the command structure was coming, which would see the merger of TFL and TFN into a single TF, with the possibility that TF Charlottetown could be absorbed as well. We were asked to offer options as to what a single TF would look like. We worked through several options between Naples, Poggio Renatico and the Canadian Forces Aerospace Warfare Centre (CFAWC), where LCol Norm Gagné had returned to his primary duties. During this time, I happened to have a conversation with BGen Viens who said that it was obvious that one of the things needed was a true wing commander in Sicily "to manage things down there," meaning the fighter, tanker and long-range patrol (LRP) detachments. By doing so, this would free the personnel in Poggio Renatico to deal with the relationship with NATO's CFACC. I passed this on to LCol Gagné who was principally working the issue and, prior to his deployment from CFAWC, had been developing doctrine for expeditionary operations along some similar lines of thought.

Shortly thereafter, CEFCON directed the merger of TFN and TFL, and appointed a single comd of the new Task Force Libeccio (TF LIB) at the rank of brigadier-general. In addition, there would be a subordinate wing formed in Sicily to command all of the detachments there. TF Charlottetown, however, would remain its own TF and continue to report directly to Comd CEFCON. From an Air Force perspective, it was the beginning of the air expeditionary wing (AEW) concept we have today with 2 Wing.

On 6 August 2011, TFN was stood down and its personnel transferred to TF LIB. The new TF LIB was now headquartered in Naples in TFN's former spaces, under the command of BGen Derek Joyce.

In retrospect

You can find the official lessons-learned reports and the many post-deployment reports from the TFs of this operation in the archives of our warfare centres. My intention is not to review these but to suggest a few items that as leaders of the RCAF we might spend some time to consider as we move forward with our new expeditionary doctrine. We have already started in this direction with the establishment of 2 Wing, and I advocate fully resourcing and staffing this organization to be in the best position possible to support our future campaigns.

It was clear that we did not have enough of the right people to execute the support mission on the ground when operations began. It is true that we cannot control the circumstances around our deployments, and anyone who expects such conditions to be perfect should probably not be in command. Recognizing this, we must be able to adapt by making decisions quickly regarding resourcing and C2. My staff initially consisted of highly competent individuals from 1 Cdn Div HQ, yet they were largely ill-equipped to support air operations. The added pressure of the impenetrable TO&E and the limit of 700 people imposed by the CDS made getting the right people in place nearly impossible until well into the operation. It was over a month before the required expertise arrived. For the future, we must do the reverse: surge in the early stages and scale back as needed once operations and activities stabilize.

All of this should be done under a C2 structure that is as simple and as unifying as possible. Had this been done earlier, from the perspective of the group providing support, it would have simplified the mission of the NCCSC and allowed the operational TFs to focus on operations while the support component did the necessary work of keeping the enablers running, free from the debate as to who owned which authorities.

I salute the members of our Air Force who took part in this operation and those from our sister environments who went to Naples to support them. We learned much from this experience, and it is gratifying to see how these lessons learned have influenced our development since. The new 2 AEW is a great leap forward in making the RCAF as prepared as it can be for its next overseas deployments, as we are seeing today in Iraq and Eastern Europe.

I would like to end by mentioning LGen Bouchard once more. He had the difficult task of keeping together a very loose coalition that was based around a core of NATO nations, and he did it very well. As I was ready to redeploy home, I visited him for a final office call. We chatted about the campaign and how things were going. Then he asked me if I was going to tell everybody in Canada what a son of a bitch he was. I told him that this was exactly what I planned to do but that I would also tell them that this was exactly what was needed in Naples right now. He laughed and shook my hand.

The next day, he joined Col Pelletier, BGen Joyce and me to preside over our transition to the next phase of Canada's involvement as we merged TFN with TFL and created TF LIB.

Brigadier-General Ormsby trained as an air combat systems officer on the CP140 Aurora and served multiple tours as aircrew in line and test units, culminating in the command of 407 Maritime Patrol Squadron, 19 Wing Comox in 2000. Staff appointments included Liaison Officer to the Chairman, United States Joint Chiefs of Staff; Deputy Chief of Staff Plans and Strategy, Canada Command; Deputy Director, J5 Combined Planning Group, United States Central Command Headquarters; and A3 Maritime (Air) Readiness, 1 Canadian Air Division Headquarters. During Op MOBILE, he commanded Task Force Naples at the rank of colonel. BGen Ormsby is currently serving as the Director General Maritime Helicopter Project in Ottawa.

Abbreviations

1 Cdn Div HQ	1 st Canadian Division Headquarters
ADCON	administrative control
AEW	air expeditionary wing
APS	active posting season
BGen	brigadier-general
C2	command and control
CAF	Canadian Armed Forces
CAOC	combined air operations centre
Cdr	commander (RCN rank)
CDS	Chief of the Defence Staff
CE	construction engineer
CEFCOM	Canadian Expeditionary Forces Command
CF	Canadian Forces
CFACC	combined force air component commander
CFAWC	Canadian Forces Aerospace Warfare Centre

CO	commanding officer
Col	colonel
comd	commander
det	detachment
HMCS	Her Majesty's Canadian Ship
HQ	headquarters
LCol	lieutenant-colonel
LGen	lieutenant-general
Maj	major
MGen	major-general
NATO	North Atlantic Treaty Organization
NCCSC	National Coordination Centre and Support Component
Op	operation
OUP	Operation UNIFIED PROTECTOR
RCAF	Royal Canadian Air Force
RCN	Royal Canadian Navy
RMS Ck	resource management support clerks
SAV	staff assistance visits
SNR	senior national representative
TAV	technical assistance visits
TF	task force
TFL	Task Force Libeccio, until 6 August 2011
TF LIB	Task Force Libeccio, from 7 August 2011
TFN	Task Force Naples
TO&E	table of organization and equipment
VTC	video teleconference

Notes

1. **Task Force Libeccio (TFL)** initially comprised the CF188 and CC150 detachments at Trapani, the CP140 detachment at Sigonella and an air component headquarters at Poggio Renatico. It was in place for Roto 0, from 19 March to 7 August 2011. **Task Force Libeccio (TF LIB)** was in place for Roto 1, from 7 August to 31 October 2011. It comprised the TF LIB Headquarters, the national command element at Naples, the Air Coordination Element at Poggio Renatico, the CF188 and CC150 detachments at Trapani as well as the CP140 detachment at Sigonella.

2. **Task Force Charlottetown / Task Force Vancouver.** In accordance with Canadian Forces' policy at the time, naval vessels deployed on their own were labeled a task force. Task Force Charlottetown consisted of the frigate HMCS CHARLOTTETOWN with an embarked RCAF CH124 Sea King detachment and was in theatre from 17 March to 18 August 2011. Task Force Vancouver consisted of HMCS VANCOUVER with an embarked RCAF CH124 Sea King detachment and was in theatre from 19 August to 31 October 2011.

3. ADCON is the direction or exercise of authority over subordinate or other organizations in respect to administrative matters such as personnel management, supply, services and other matters not included in the operational missions of the subordinate or other organizations.

CHAPTER 5

Task Force Libeccio: A Unified Command at Last

By Major-General Derek Joyce, OMM, MSM, CD

Armchair quarterback

As my colleagues have described in detail in their own chapters of this publication, the first four months of Operation (Op) MOBILE saw the emergence both of tactical successes and logistical challenges. While the agility of our fighting air forces was clearly demonstrated, the chinks in the armour supporting the flying operations became more and more apparent as the mission continued. Prior to deploying as the Commander of Task Force Libeccio¹ and Canadian National Commander of Op MOBILE, I had a unique perspective of the operation as the Commanding Officer of the Canadian Forces Aerospace Warfare Centre (CFAWC) at 8 Wing Trenton—in other words, an armchair quarterback—through CFAWC's Analysis and Lessons Learned Branch. Shortly after Op MOBILE commenced, I contacted Colonel (Col) Alain Pelletier and offered up CFAWC support to stand-up a theatre lessons learned programme. During their tour through the theatre, the team from CFAWC rightly identified that the air-focused campaign of Operation UNIFIED PROTECTOR (OUP) and the deployment of five different aircraft types to support Op MOBILE offered an outstanding opportunity to assess the Royal Canadian Air Force's (RCAF's) ability to deploy, operate and sustain operations. This was particularly timely, since the Doctrine Development Branch at CFAWC was close to completing all of the aerospace doctrine manuals, and this was an opportunity to validate many of these concepts. In this chapter, I will offer my perspective on the successes achieved in the air campaign during the last half of the operation and to point out the challenges that persisted. My focal point will be on the impact of the command and control (C2) changes initially, followed by a mention of a few of the advancements made in the last several weeks of the flying operations. I will conclude with some thoughts on the final activities that occurred once operations wrapped up. In some areas my opinions may differ from those of my colleagues, but I see these divergences as opportunities for healthy debate.

Command relationships and division of duties

In the early reports from CFAWC's lessons learned team deployed into theatre, in spite of the very real successes of the air operations, it was obvious by June that the C2 structure in theatre was flawed at many levels. The concept of a theatre-support command operating independently from the operational command, with blurred and overlapping

responsibilities, was not working, as has been described by my colleagues. Additionally, the Canadian Mission Support Flight (MSF) in Sicily was having difficulties integrating at the tactical level to support the fighter operations and air-to-air refuelling operations at the Trapani air base as well as the Aurora detachment (det) at the other end of the island at the Sigonella Air Base. The lessons learned team reported that the root cause of much of these difficulties was parallel command structures—exemplified by the fact that each fleet and the MSF independently reported directly to the Task Force Libeccio (TFL) Commander in Poggio Renatico for all operational and support issues and that his headquarters (HQ) was severely undermanned. In short, the principle of unity of command had been compromised. Therefore, it was with a sense of relief that I was informed prior to deploying into theatre that I would be assuming command of a new structure that merged Task Force Naples (TFN) and TFL into Task Force Libeccio (TF LIB) and would be led by a brigadier-general.

During my pre-deployment key-leader engagement briefings at Canadian Expeditionary Force Command (CEFCOM), it was evident that there was confidence in how air operations were being conducted in theatre. CEFCOM staff, however, clearly identified several theatre-support issues, such as armament storage, the aviation fuel and supply account as well as financial authorities that were directly attributable to the awkward command relationships. During my in-briefings, I noted there was a clear sense of purpose at CEFCOM about how the transition to the new C2 structure would address these issues. Upon my arrival in theatre it became apparent that this sense of purpose was shared among the entire staff at TFN—which was to become my task force (TF) joint staff (J Staff). Thanks to their outstanding planning and preparation led by Col Paul Ormsby, immediately after assuming command of TF LIB on 7 August, the J Staff was able to kick into high gear with staff assistance visits to all deployed locations to address the myriad of support problems in theatre—now possible under a unified command.

The J Staff worked hard to address the many support problems that had manifested themselves over the course of the operation. For example, shortly after arriving in theatre, I was informed that the British forces operating from Trapani Airfield provided all our aviation fuel, both for fighter and air-to-air refuelling operations. Because we had not paid the British det for fuel from the commencement of operations, we were being threatened with a reduced level of delivery until financial arrangements could be made. Given that we were conducting fighter operations and air-to-air refuelling operations from the base, this was a serious issue. While the problem was quickly regulated, it was unfortunate that the situation reached such a level of irritation.

Forming the merged TF LIB had an important impact on the conduct of flying operations. Prior to taking command of the TF, I met with Lieutenant-Colonel Dan McLeod, commander of the newly formed Sicily Air Wing (SAW), to discuss his role as the wing commander responsible to me for all flying operations for our fleets based in Sicily. I wanted “one dog to kick” for all fleets, and he quickly focused SAW on working as a wing vice a group of individual detts. With Major Eric Grandmont, he

built a functional wing operations support flight (OSF) that became the focal point for all operational communications, flight and statistics tracking as well as wing planning. He also integrated the MSF into the wing's structure and set the example for opening liaison between the MSF and the TF J Staff to address wing-level support issues. With the MSF to oversee the provision of logistical, administrative and engineering services as well as the OSF to coordinate operations and the employment of wing resources, many of the previous C2 shortfalls were addressed. While steady advances were made over the duration of SAW's operation, some legacy issues were never completely mitigated, such as reliance on the "tech-net" to bring parts and tools into theatre. As well, the CP140 Det never fully integrated into SAW operations due to the distance between the two and the indirect C2 relationship—the CP140 Det was tasked by the Joint Force Maritime Component Commander while operations at Trapani came under control of the Joint Force Air Component Commander. Regardless, the nascent air expeditionary wing (AEW) doctrine was validated, and its success has since been reinforced through the stand-up of 2 AEW in Bagotville, the deployments of the AEW on exercises like RIMPAC and JOINTTEX and with the most recent deployment of the AEW to Kuwait in support of Op IMPACT. The value of the AEW is a lesson the RCAF has learned and codified in both doctrine and practice.

The stand-up of TF LIB also required new operational processes in theatre. The operations team and I needed to assess how, as the Task Force Commander (TF Comd), I would integrate into an ongoing theatre air operation without compromising operations primacy and interrupting operational effectiveness already established. I met with Col Pelletier in August to discuss this next challenge. As directed by CEFCOM, he, as the newly minted TF Air Coordination Element (ACE) in the Combined Air Operations Center (CAOC) in Poggio Renatico, would retain the red-card-holder¹ and target-approval-authority duties. As the TF Comd, however, we agreed that I would now approve a theatre-wide weekly flying programme, including any changes to the planned aircraft missions and surge planning, and would have full visibility on aircraft movements in and out of theatre through my J3 (air operations) organization. A visit to the CAOC a week after taking command helped me to better understand the ACE battle rhythm and further refine the division of our roles and responsibilities. In short order, this arrangement was published as a TF operational directive to provide clarity to all. Overall, I believe that the division of duties was logical, given that the new structure overlaid upon an existing operation. However, given the challenging nature of sharing intelligence within a coalition, I believe that opportunities were missed to improve the operational efficiencies within the TF by consolidating the target-approval process at the TFL HQ.

A reality of conducting North Atlantic Treaty Organization (NATO) operations in a coalition environment is that intelligence will not be shared equally with all partners, and OUP was no exception. There were concentric circles of access to intelligence that gradually added more members the further from the centre one moved. Overlay a very high targeting standard and a very low tolerance for collateral damage and the results often frustrated Lieutenant-General (LGen) Charles Bouchard. Nations, including

Canada, would refuse to accept targets he had approved because of specific national restrictions;⁵ however, they frequently did not have access to the full intelligence picture due to restricted distribution of some material as well as systems availability and compatibility at the NATO CAOC. In reality, the best intelligence for targets was often only available in OUP HQ in Naples, but the national target-approval authorities were located in the CAOC in Poggio Renatico or in the coalition partner's national capitals. With a Canadian NATO Commander and the best targeting intelligence available in OUP HQ in Naples, I opine that the Canadian in-theatre target approval authority would have been better situated in Naples vice Poggio Renatico.

Another command relationship worthy of comment was the strong connection that developed between TF LIB and Winnipeg during the operation. As the Commander of 1 Canadian Air Division in Winnipeg, Major-General (MGen) Alain Parent was also double-hatted as the Canadian Forces Air Component Commander to Commander CEFCON and had the full confidence of LGen Marc Lessard and then-LGen Stuart Beare regarding the operational employment of air assets in theatre. As a result, I maintained frequent communications with Winnipeg on numerous issues involving the mission set for our aircraft fleets. For example, I worked closely with MGen Parent and his staff on issues such as supporting the development of a forward air controller (FAC) role, overland operations for the CP140 Det and deep strikes into Libya for the CF188 Det. Once MGen Parent was convinced of the operational necessity and feasibility of these new roles, the Commander CEFCON then approved the implementation. The process worked well and the TF had outstanding support from Winnipeg during the operation.

Overall, I am confident that the C2 construct I inherited on 7 August 2011 was operationally effective; however, I believe that an opportunity was missed to consolidate the theatre reporting lines even more. Even with the merging of TFL and TFN, there were still four different lines of communication reporting directly to CEFCON from the same area of responsibility. In addition to the direct line the TF ACE had to CEFCON HQ for targeting, Her Majesty's Canadian Ships CALGARY and VANCOUVER and TF LOBE (the Special Operations Force Command [SOFCON] operation to reopen the Canadian Embassy in Libya) also reported directly to CEFCON. In my opinion, the merging of TFL and TFN should have gone further to include the Naval TF, the target approval responsibility and possibly the SOFCON TF in order to reduce the number of direct reports to CEFCON from the same theatre. In this manner, the number of direct reports to CEFCON would have been reduced to one or two.

A culture of continuous improvement

My colleagues have all touched upon the numerous successes achieved during the air campaign portion of Op MOBILE. I echo their resounding call that it was the hard work, professionalism and high quality of officers and non-commissioned members from all three environments deployed as part of TFL, TFN and TF LIB that carried the day.

What impressed me the most about the TF personnel was their commitment to continuous improvement as well as their constant adjustment to meet the changing needs of the operation right to the very end. This mindset was not just resident within TF LIB but extended to the support received from Canada and even our OUP allies. This resolve was well exemplified during the final weeks of the TF's operations.

Op MOBILE offered the CF188 community the first opportunity to use the Sniper Advanced Targeting Pod and laser designator in deployed combat operations and to employ new weapons such as the Guided Bomb Unit-38 joint direct attack munition (JDAM). Despite the general acceptance that the war was nearing its end, the JDAM was cleared for use by CF188s, with the first weapon dropped on 1 October 2011. Its guidance package, based on global-positioning cues, allowed for strikes on known targets in fixed locations regardless of meteorological conditions. This became a key enabler as the weather over Libya worsened and laser-guided bombs were often no longer useful, given the heavy cloud cover over the operating area. The introduction of the JDAM was particularly impressive, as it showcased Canada's capacity to respond rapidly to operational requirements in times of war. The testing and clearance of new technology for aircraft is usually a lengthy process which can take years, but in this case the JDAM operational implementation was completed in only four months. The integration of the JDAM into the CF188 fleet in the last few weeks of the operation—Qaddafi was captured and killed just 20 days after our first JDAM drop—was a testament to the commitment to continuous improvement of the RCAF's in-theatre capabilities.

A significant operational development during the nadir of TF LIB's mandate occurred in the CP140 Det. For the majority of the operation, the CP140 was restricted to over-water operations due to the surface-to-air threat over Libya. I had several discussions with Col Pelletier and, subsequently, with Col Eric Kenny regarding the use of the CP140 over land given the immediate operational need for additional theatre intelligence, surveillance and reconnaissance (ISR) assets. As the air threat on the ground subsided, we worked closely with Winnipeg to develop a phased, conditions-based approach to employing the CP140 over land. This new mission set for the CP140 commenced with ISR missions over Tripoli in support of SOFCOM's Op LOBE and the opening of the Canadian embassy. The next phase involved ISR missions in the Libyan littoral region to identify pro-Qaddafi forces. This proved particularly timely, as high winds and poor weather in the Mediterranean region impacted unmanned aircraft (UA) operations, with many of the ISR missions cancelled because the UAs could not take off from Sicily. The final phase of Op MOBILE saw the CP140 operating over Libyan territory, including deep surveillance missions over the Waddan chemical storage facility in central Libya. This final phase also saw the development of the CP140 in the strike coordination and reconnaissance – coordinator (SCAR-C) role—a new mission for the CP140 community.

In the SCAR-C role, the CP140 employed a fire support team (FST) of FACs / joint terminal attack controllers (JTACs) to locate targets using the CP140 sensors. During a SCAR-C mission, the FST coordinated the approval for weapons release with the CAOC

and, once approved, directed fighters to the target area to visually acquire the target for prosecution. Without any Canadian FAC-qualified personnel in theatre initially, the CP140 Det worked closely with United Kingdom (UK) FSTs to develop this capability. The CP140 flew its first SCAR-C mission on 1 October 2011 and completed 12 missions before Canadian Armed Forces (CAF) flying operations ended on 22 October 2011. The CP140 became the favourite platform for the British because of its enhanced capabilities and mission suite. In order to build upon Canadian capabilities, a JTAC team was quickly deployed from Gagetown, New Brunswick, to Sigonella. The two-man team arrived on short notice and was able to progress under the supervision of the UK team over the course of several missions. Once certified, the first all-Canadian mission flew on 17 October 2011.

In an excellent example of Canadian air-to-air integration, the RCAF brought the whole package to the fight over Bani Walid on 5 October. The CP140 Det conducted two patterns-of-life missions in support of seven target strikes by NATO aircraft from three different nations, including three CF188 missions. The CP140s provided pre-strike surveillance and post-strike battle damage assessment for the fighters. Emphasizing the Canadian connection on this mission, the CF188s refuelled using the CC150T and prosecuted targets with the new JDAMs. This mission exemplified the commitment to continuous operational improvement within TF LIB to the very end.

Learn, legacy, leave

The capture and death of Qaddafi on 20 October triggered a significant shift in activity within OUP and TF LIB. During a meeting, LGen Bouchard told his staff and all the national representatives that "we will be remembered for what we do in these last few days." Within hours, all OUP kinetic activity was stopped except for self-defence, and a surveillance "over-watch" period commenced. The next day, I received orders to cease all TF flying activity, and our aircraft remained on the ground on standby until they redeployed to Canada a few weeks later.

It was during the period that followed that I received new instructions from LGen Beare, the commander of CEFCON. Well known for his ability to create snappy, memorable quips, I was ordered to focus on "learn, legacy, leave." By "learn," he meant that during the final few weeks of TF LIB we were to finalize the lessons learned report which was being capably managed by the TF Lessons Learned Officer, Mr. Ian McCandie. Importantly, we were also to codify the new capabilities we had developed, including the AEW, JDAM and the SCAR-C mission to ensure they were transferred back to Canada. This was done through the development of standard operating procedures and tactics, techniques and procedures prior to redeploying.

The "legacy" task was intended to ensure that the manner in which Canada departed the theatre was of such a high calibre that we would be welcomed back to Italy in the future if another deployment was ever required. Being the "largest aircraft carrier" in the

Mediterranean, a strong relationship with Italy is of great strategic interest to Canada. This meant that TF personnel at each deployed site worked closely with their Italian counterparts to determine the condition in which our hosts wanted us to leave our deployment sites. This meant removing infrastructure we had developed as well as site remediation. It also included showing our gratitude to our Italian hosts in a manner that befitted the outstanding support they had provided during the operation and inviting them and other allies to our mission closure ceremonies at each location.

Finally, we were to "leave" Italy in a phased approach that ensured no CAF member, aircraft or equipment remained in theatre longer than necessary. Once the mission closure ceremonies at Poggio Renatico, Trapani and Sigonella were completed, the aircraft departed theatre, and the final packing and site clean up commenced. This phase also included supporting the departure of LGen Bouchard and enabling his replacement, LGen Marquis Hainse of the Canadian Joint Intelligence Cell, which would now remain in theatre to support the Canadian NATO Deputy Commander in Naples. I passed command of TF LIB to Col Mike Rafter for this final phase on 7 November—three months to the day after I took command. He worked closely with the CEFCON theatre deactivation team until his departure three weeks later.

As a final word, I would like to highlight that the achievements of TF LIB during my tour were reliant upon the outstanding efforts of my predecessors, Cols Ormsby and Pelletier, and their professional and dedicated teams that set the necessary conditions for success as the TFs merged. I applaud the operational focus of every member of TF LIB and the drive and innovation they brought to the fight regardless of uniform, trade or rank. Reflecting upon what we have learned from the experience, I am heartened to note that Canada has deployed an AEW to support RCAF operations over Iraq as part of Op IMPACT. I am relieved to see the C2 structure in theatre reflects a similar structure that we had in place for TF LIB, respecting the principle of unity of command. And last but not least, I am pleased to see the CF188, CP140 and CC150T aircraft in theatre employing equipment, tactics and procedures that were developed during Op MOBILE.

Major-General Joyce trained as an air combat systems officer on the CP140 Aurora and served multiple tours as aircrew, culminating in the command of 405 (Maritime Patrol) Squadron, 14 Wing Greenwood in 2004. Between 2006 and 2011, he served in Afghanistan, was appointed Wing Commander of 14 Wing and commanded the Canadian Forces Aerospace Warfare Centre. In 2011, he deployed overseas as the Commanding Officer of Task Force Libeccio with Operation MOBILE. At the general officer rank, he has served in the Privy Council Office and subsequently as the Director General Military Careers. Major-General Joyce is currently the Deputy Commander, Military Personnel Command.

Abbreviations

ACE	air coordination element
AEW	air expeditionary wing
C2	command and control
CAOC	combined air operations center
CEFCOM	Canadian Expeditionary Force Command
CFAWC	Canadian Forces Aerospace Warfare Centre
Col	colonel
det	detachment
FAC	forward air controller
FST	fire support team
HQ	headquarters
ISR	intelligence, surveillance and reconnaissance
JDAM	joint direct attack munition
J Staff	joint staff
JTAC	joint terminal attack controller
LGen	lieutenant-general
MGen	major-general
MSF	mission support flight
NATO	North Atlantic Treaty Organization
Op	operation
OSF	operations support flight
OUP	Operation UNIFIED PROTECTOR

RCAF	Royal Canadian Air Force
SAW	Sicily Air Wing
SCAR-C	strike coordination and reconnaissance – coordinator
SOFCOM	Special Operations Force Command
TF	task force
TF Comd	task force commander
TFL	Task Force Libeccio, until 6 August 2011
TF LIB	Task Force Libeccio, after 7 August 2011
UA	unmanned aircraft
UK	United Kingdom

Notes

1. **Task Force Libeccio (TFL)** initially comprised the CF188 and CC150 detachments at Trapani, the CP140 detachment at Sigonella and an air component headquarters at Poggio Renatico. It was in place for Roto 0, from 19 March to 7 August 2011. **Task Force Libeccio (TF LIB)** was in place for Roto 1, from 7 August to 31 October 2011. It comprised the TF LIB Headquarters, the national command element at Naples, the Air Coordination Element at Poggio Renatico, the CF188 and CC150 detachments at Trapani as well as the CP140 detachment at Sigonella.

2. Red card holder is a slang term for the national mission/target acceptance authority and is the individual who, in accordance with national direction and rules of engagement, accepts the responsibility to undertake a mission or engage a target. The term is indicative of holding up a red (stop) card to indicate that a mission/target will NOT be accepted.

3. Canada operated under specific Canadian rules of engagement and under a Chief of the Defence Staff targeting directive, which imposed a high degree of constraints on the Canadian red card holder during the NATO targeting process, ensuring minimal collateral damage to property and no civilian casualties.



Sergeant Stephen Miller, load master, hands passports back to the entitled persons after boarding the CCL30J Hercules at the Tripoli International Airport, Libya.



A communications technician on board a NATO E-3A airborne warning and control system (AWACS) aircraft leaves for a mission over the Mediterranean Sea.



Private Sean Rogowsky, an airborne electronics sensor operator, is greeted by his daughter at 14 Wing Greenwood when returning from Operation MOBILE.

Le sergent Stephen Miller, arrimeur, remet les passeports après l'embarquement à bord du CCL30J Hercules à l'aéroport international de Tripoli, en Libye.

Un technicien des communications à bord d'un avion E-3A AWACS de l'OTAN, quitte Trapani, en Italie, en vue d'une mission au-dessus de la mer Méditerranée.

Le soldat Sean Rogowsky, opérateur de détecteur électronique aéroporté, est accueilli par sa fille à la 14^e Escadre Greenwood à son retour de l'opération MOBILE.

Lieutenant-Colonel (LCol) E. J. Kenny (back left), incoming Task Force (TF) Libeccio Trapani Detachment Commanding Officer, and Colonel A. J. P. Pelletier (back right), TF Libeccio Air Component Commander, watch as Chief Warrant Officer (CWO) A. C. Pettipas (front left), incoming TF Libeccio Trapani Detachment CWO; LCol S. Y. Ménard (middle), outgoing TF Libeccio Trapani Detachment Commanding Officer; and CWO J. P. C. Rioux (front right), outgoing TF Libeccio Trapani CWO, sign the Change of Responsibilities scroll, Trapani, Italy.

Le lieutenant-colonel (Lcol) E. J. Kenny (à gauche, à l'arrière), nouveau commandant du détachement Trapani de la Force opérationnelle (FO) Libeccio, et le colonel A. J. P. Pelletier (à droite, à l'arrière), commandant de la composante aérienne de la FO Libeccio, observent l'adjudant-chef (Adjuc) A. C. Pettipas (à gauche, à l'avant), nouvel Adjuc du détachement Trapani de la FO Libeccio, le Lcol S. Y. Ménard (au centre), commandant sortant du détachement Trapani de la FO Libeccio, et l'Adjuc J. P. C. Rioux (à droite, à l'avant), Adjuc sortant du détachement Trapani de la FO Libeccio, qui signent le document de transfert de responsabilités, à Trapani, en Italie.



Sergeant Clint Charron (left) and Master Corporal Ryan Stacey (right), Task Force Libeccio construction engineers, setting up a mess tent at Camp Fortin, Trapani, Italy.

Thanksgiving dinner for members of the Sicily Air Wing (SAW) that was cooked and served by SAW Food Services members, Trapani, Italy.

Brigadier-General Derek Joyce, Task Force Libeccio Commander, speaks during the Sicily Air Wing Trapani Detachment Closure Ceremony, Trapani, Italy.

Le sergent Clint Charron (à gauche) et le caporal-chef Ryan Stacey (à droite), du génie construction de la Force opérationnelle Libeccio, installent la tente du mess au camp Fortin, à Trapani, en Italie.

Repas de l'Action de grâce pour les membres de l'Escadre aérienne en Sicile, préparé et servi par les membres des services d'alimentation de l'Escadre, à Trapani, en Italie.

Le brigadier-général Derek Joyce, commandant de la Force opérationnelle Libeccio, prononce un discours lors de la cérémonie de clôture du détachement Trapani de l'Escadre aérienne en Sicile, à Trapani, en Italie.





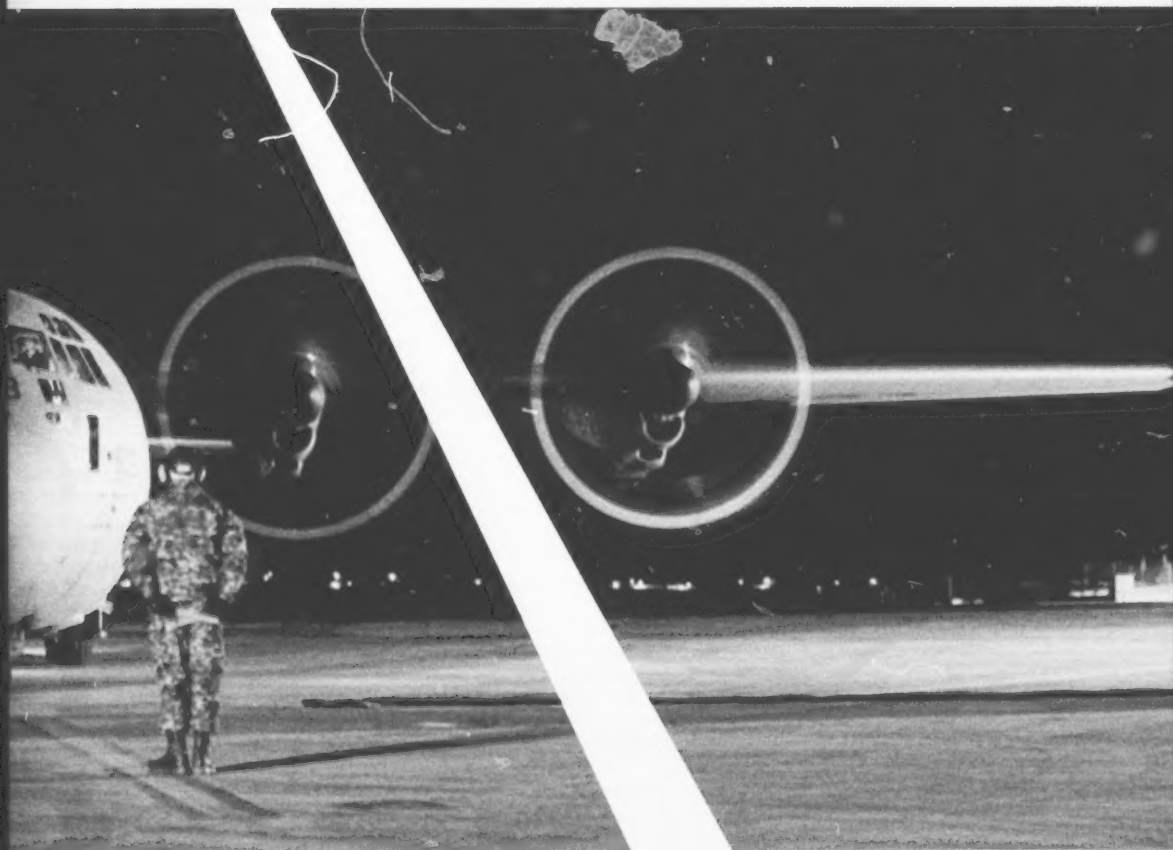
Armament crews, made up of Task Force Libeccio air weapons technicians, mount GBU-10 two thousand pound (900 kilogram) bombs to the CF188 Hornet, Trapani, Italy.

Le personnel de l'armement, composé de techniciens d'armement aérien de la Force opérationnelle Libeccio, embarque des bombes GBU-10 de 2 000 livres (900 kg) à bord du CF188 Hornet, à Trapani, en Italie.



A CC130J Hercules taxis at the Malta International Airport after the emergency evacuation flight of entitled persons out of Libya during Operation MOBILE, Luqa, Malta.

Un CC130J Hercules circule sur la piste de l'aéroport international de Malte après l'évacuation d'urgence des personnes autorisées hors de la Libye, lors de l'opération MOBILE, à Luqa.



Returned from Trapani, Italy,
seven CF188 Hornets park at
Canadian Forces Base,
Bagotville, Quebec.

Au retour de Trapani, en Italie,
sept CF188 Hornet se posent à
la Base des Forces canadiennes
Bagotville, au Québec.

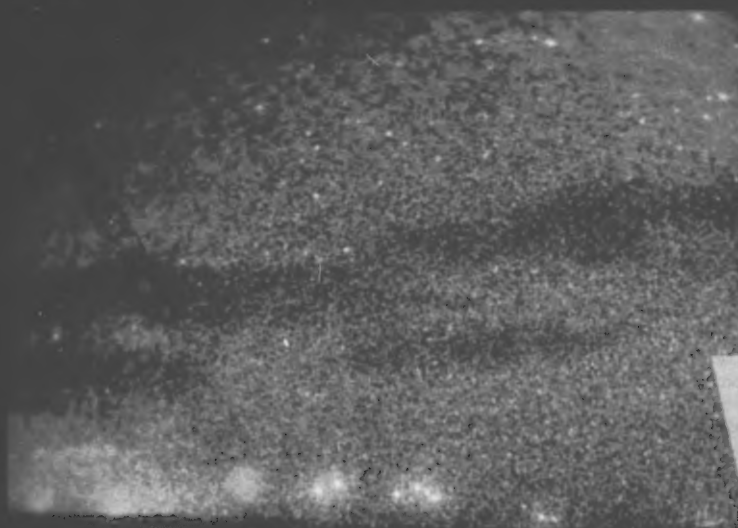






Regime forces fire 20 millimetre
anti-aircraft canon rounds towards
coalition ships, Her Majesty's Canadian
Ship CHARLOTTETOWN.

Les forces du régime tirent des munitions
antiaériennes de 20 millimètres en
direction des navires de la coalition.
Navire canadien de Sa Majesté
CHARLOTTETOWN.



A CF188 Hornet launches for a mission at sunset, Trapani, Italy.

Un CF188 Hornet décolle en vue d'une mission au crépuscule, à Trapani, en Italie.





A CC177 Globemaster III from
429 Transport Squadron,
Trenton, waits on the flight
line, Trapani, Italy.

Un CC177 Globemaster III
du 429^e Escadron de transport,
Trenton, en attente sur l'aire
de trafic, à Trapani, en Italie.



L'adjudant Lauren Hatfield (à l'avant) et le caporal-chef Dave Dorosz (à l'arrière), opérateurs de détecteur électronique embarqué de la Force opérationnelle Libeccio, s'occupent des radars à bord d'un avion CP140 Aurora pendant une mission à Sigonella, en Italie.

Warrant Officer Lauren Hatfield (front) and Master Corporal Dave Dorosz (back), Task Force Libeccio airborne electronic sensor operators, man the radars aboard a CP140 Aurora during a mission, Sigonella, Italy.



Des CF188 et un CC150 Polaris défilent au-dessus du Parlement pour marquer la fin de l'opération MOBILE, à Ottawa, en Ontario.

A flypast of CF188 Hornets and a CC150 Polaris takes place over Parliament to mark the end of Operation MOBILE, Ottawa, Ontario.



Le caporal Amélie Côté, technicienne en structures d'avions de la Force opérationnelle Libeccio, crée une pièce pour un panneau, à Trapani, en Italie.

Corporal Amélie Côté, Task Force Libeccio aircraft structure technician, creates a part for a panel, Trapani, Italy.



Les soldats Aaron Kennedy (à droite) et Devin Berube (à gauche), techniciens en systèmes d'armement aérien de la Force opérationnelle Libeccio, donnent le feu vert au pilote d'un CF188 après vérification des procédures d'armement, à Trapani, en Italie.



Un CP140 Aurora fait démarrer ses moteurs en vue d'un vol fonctionnel, à Sigonella, en Italie.

A CP140 Aurora starts its engines to depart for a functioning flight, Sigonella, Italy.

Privates Aaron Kennedy (right) and Devin Berube (left), Task Force Libeccio air weapon system technicians, give the go ahead to the CF188 Hornet pilot after performing their arming procedures, Trapani, Italy.



Un aéronef E-3A AWACS
(système aéroporté d'alerte et
de contrôle) de l'OTAN, à la
base militaire de Trapani-Birgi,
en Italie.

A NATO E-3A airborne
warning and control system
(AWACS) aircraft at the
Trapani-Birgi military base, Italy.



Un camion d'incendie italien
est utilisé pour nettoyer un
CC130T Hercules pendant
l'opération MOBILE, à Trapani,
en Italie.

An Italian fire truck is used to
clean a CC130T Hercules
during Operation MOBILE,
Trapani, Italy.

Les techniciens en aéronautique
de la Force opérationnelle
Libeccio préparent un point
fixe pour vérifier la présence
de fuites sur un CF188
Hornet, à Trapani, en Italie.

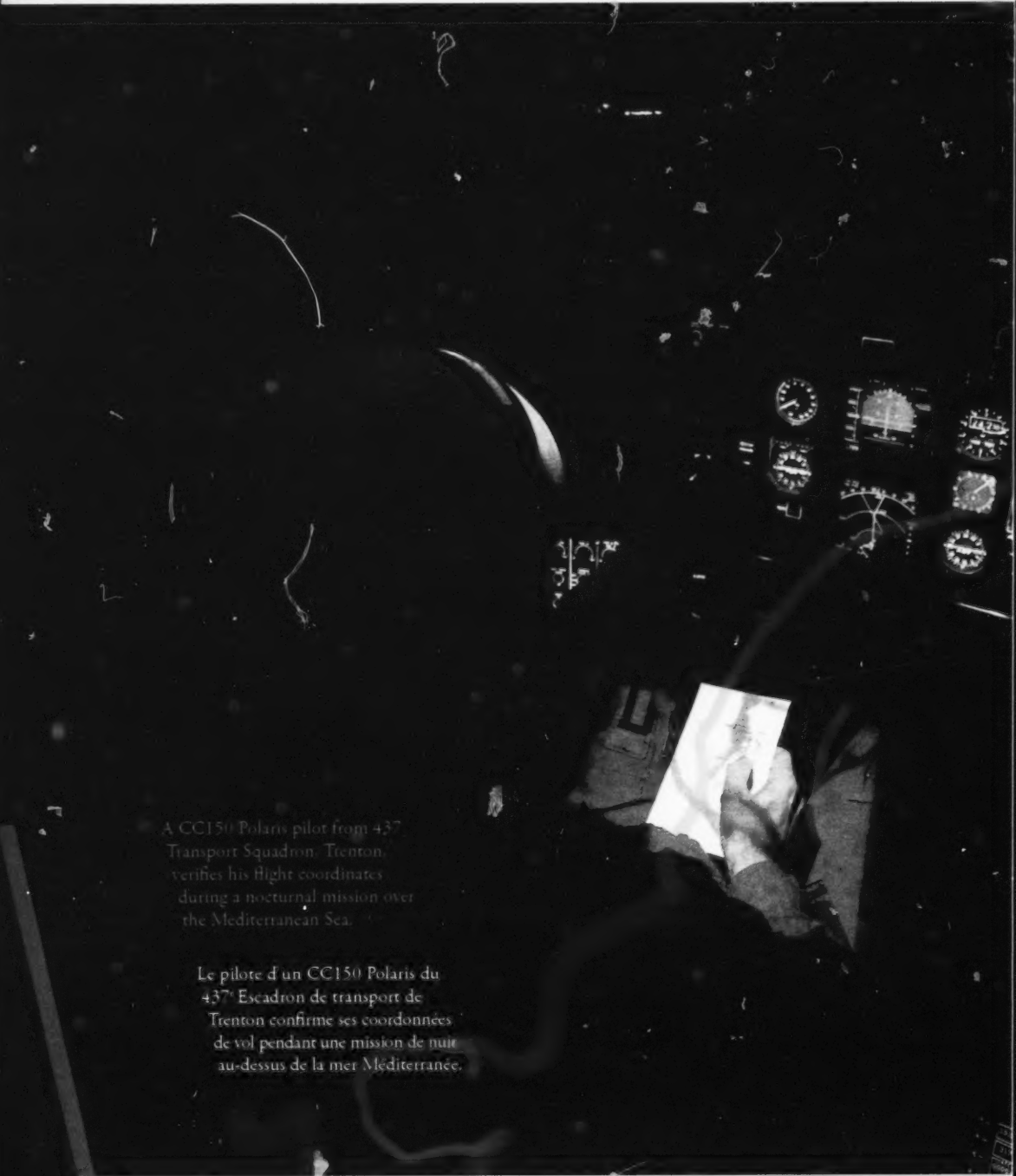
Task Force Libeccio aviation
technicians prepare a ground-
run leak check for a CF188
Hornet, Trapani, Italy.



Des CF188 Hornets du
425^e Escadron d'appui tactique
à Bagotville en attente sur l'aire
de trafic, à Trapani, en Italie.

CF188 Hornets from 425
Tactical Fighter Squadron,
Bagotville, wait on the flight
line, Trapani, Italy.

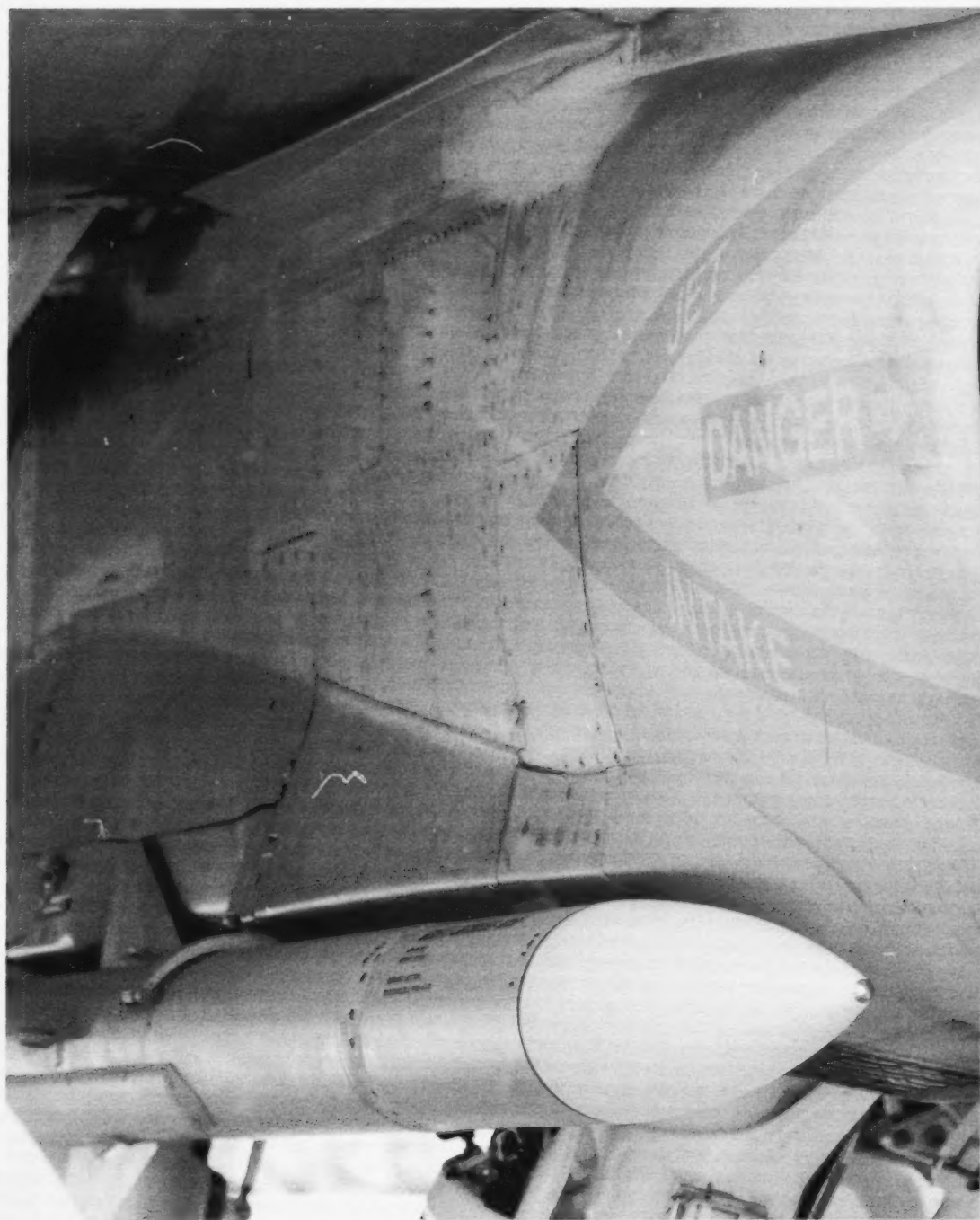


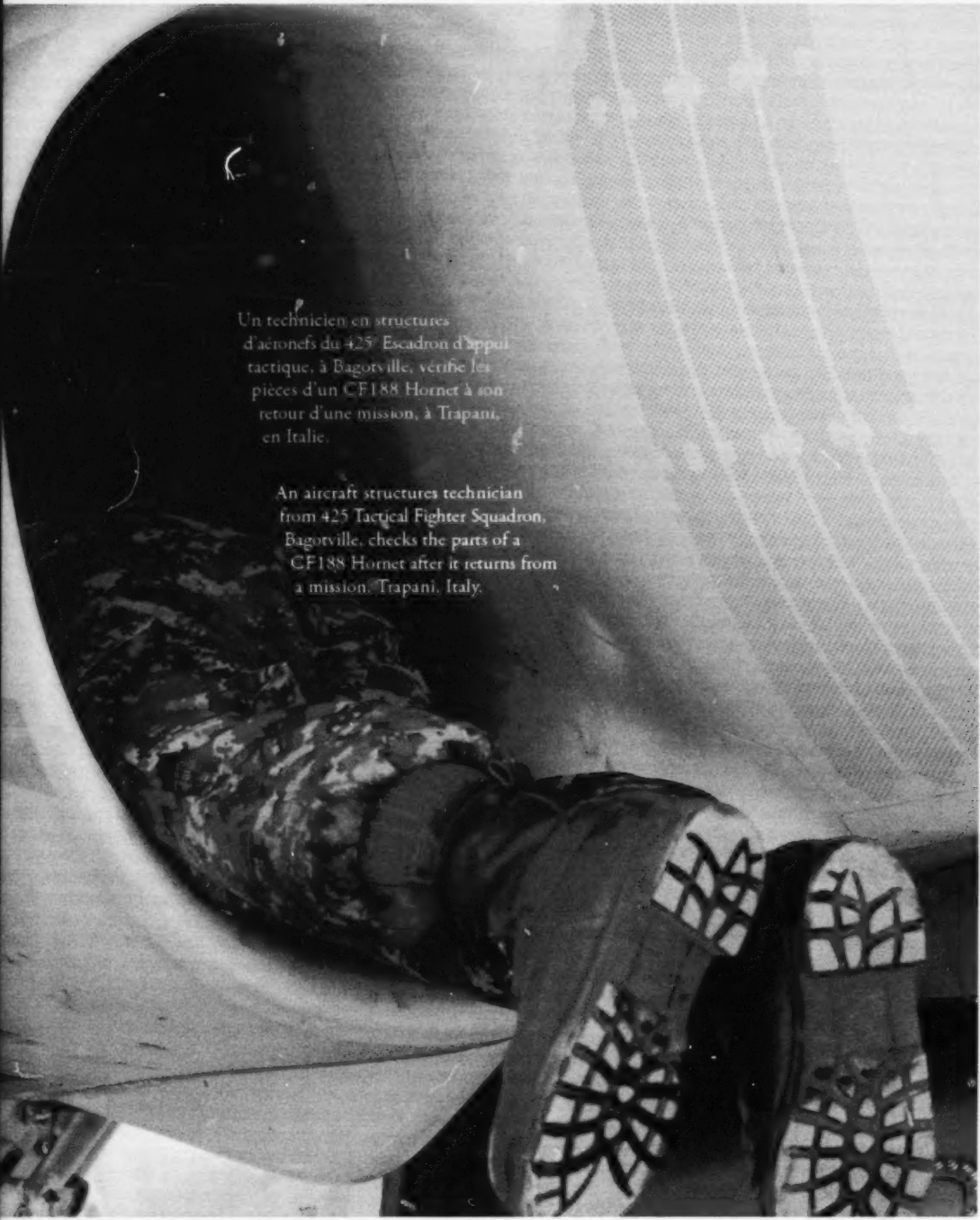


A CC150 Polaris pilot from 437 Transport Squadron, Trenton, verifies his flight coordinates during a nocturnal mission over the Mediterranean Sea.

Le pilote d'un CC150 Polaris du 437^e Escadron de transport de Trenton confirme ses coordonnées de vol pendant une mission de nuit au-dessus de la mer Méditerranée.







Un technicien en structures
d'aéronefs du 425^e Escadron d'appui
tactique, à Bagorville, vérifie les
pièces d'un CF188 Hornet à son
retour d'une mission, à Trapani,
en Italie.

An aircraft structures technician
from 425 Tactical Fighter Squadron,
Bagorville, checks the parts of a
CF188 Hornet after it returns from
a mission, Trapani, Italy.

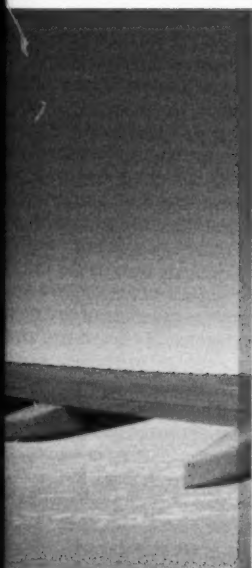


Le colonel Alain Pelletier, commandant de la 3^e Escadre Bagotville, lors d'une conférence de presse tenue pour annoncer le départ de six CF188 Hornets canadiens à l'appui de l'intervention des Nations Unies en Libye, à la 3^e Escadre Bagotville.

Maintenant major-général, Paul Ormsby occupe le poste de sous-chef d'état-major du sous-ministre adjoint (Matériels) et d'officier chef du commandement.

Now a major-general, Paul Ormsby is currently serving as the Deputy Chief of Staff for Assistant Deputy Minister (Materiel) and Officer Commanding the Command.

Colonel Alain Pelletier, Commander 3 Wing Bagotville, at a press conference announcing the departure of six Canadian CF188 Hornets in support of the United Nations intervention in Libya, 3 Wing Bagotville.



Un CF188 Hornet du 425^e Escadron d'appui tactique, à Bagotville, lors d'un ravitaillement air-air au-dessus de la mer Méditerranée.

A CF188 Hornet from 425 Tactical Fighter Squadron, Bagotville, takes on fuel over the Mediterranean Sea.



Le lieutenant-général Charles Bouchard, commandant, Force opérationnelle interarmées multinationale Unified Protector, s'adresse à l'équipage du Navire canadien de Sa Majesté CHARLOTTETOWN sur la mer Méditerranée.

Lieutenant-General Charles Bouchard, Commander, Combined Joint Task Force Unified Protector, speaks to the crew of Her Majesty's Canadian Ship CHARLOTTETOWN while in the Mediterranean Sea.



Des drapeaux flottent à l'entrée de la base militaire italienne, à Poggio-Renatico.

Flags fly at the entrance to the Italian military base, Poggio-Renatico.